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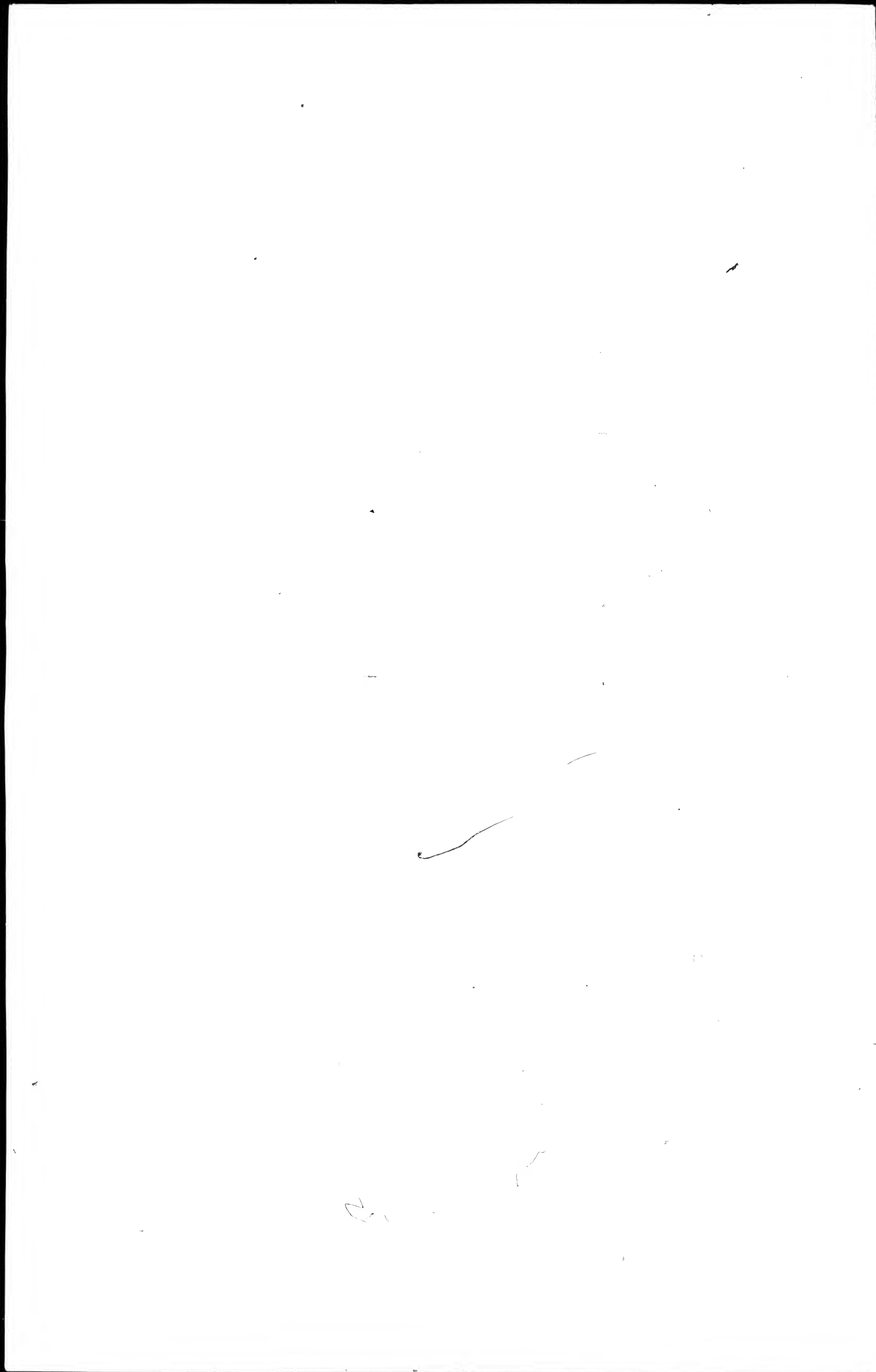
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The Pacific Pharmacist

Vol. 1

May, 1907

No. 1



PUBLISHED AT
San Francisco, California

AN INDEPENDENT JOURNAL DEVOTED
TO SCIENTIFIC PHARMACY AND THE
INTERESTS OF THE DRUG TRADE

Price, 15 Cents

\$1.50 Per Year

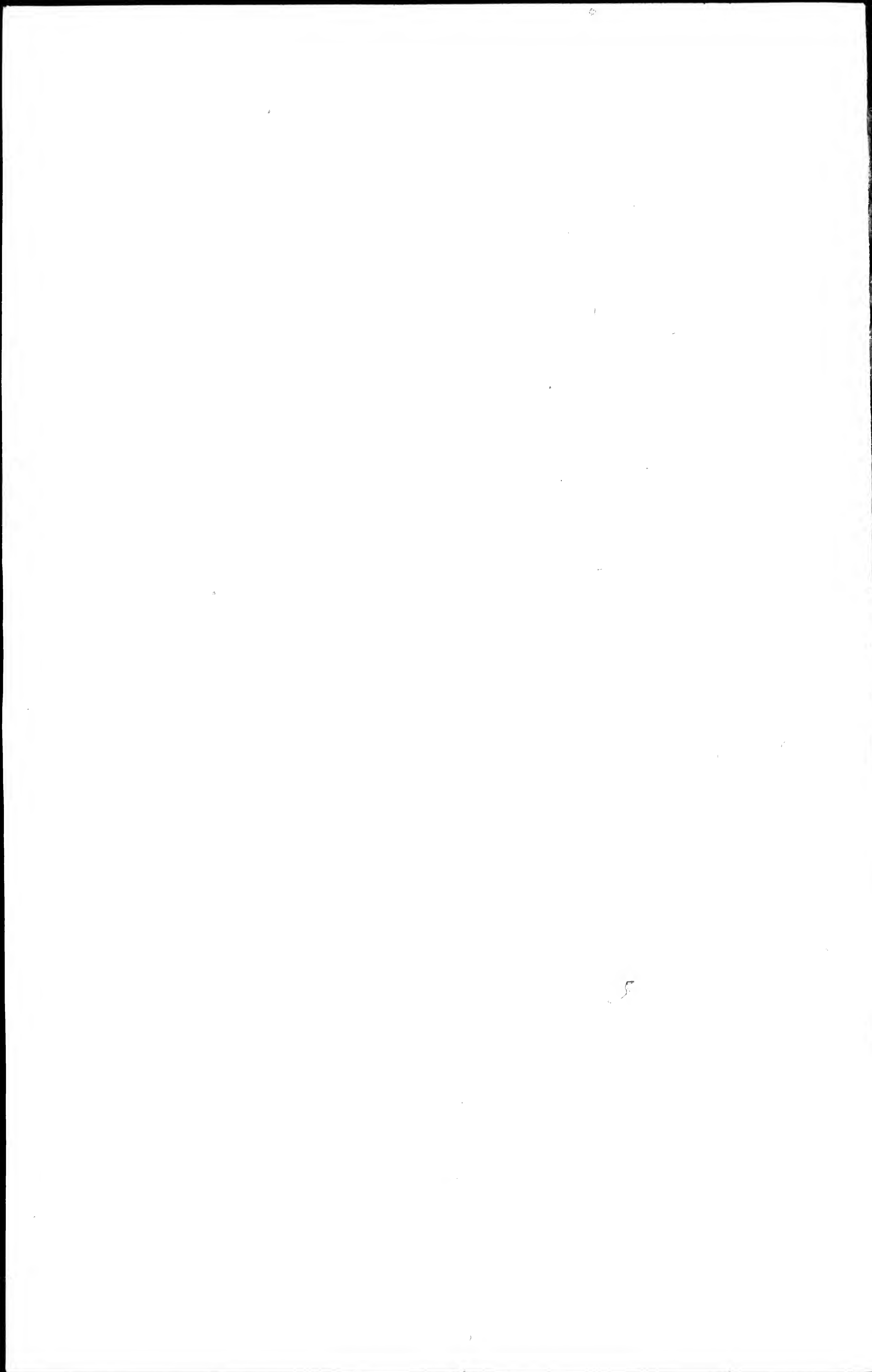
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To the Druggists of the U. S.

For several years past we have had printed upon the face of our cartons, as well as in our newspaper advertisements, the fact that in the manufacture of our laxative we use senna as well as figs, and we have now decided, in order to make the name more fully descriptive of the remedy, to add to the name Syrup of Figs the words "and Elixir of Senna." The trade and the public will doubtless continue to call for the remedy by the original and shorter name of Syrup of Figs, but hereafter its full official title will be, as printed upon our labels and cartons, "Syrup of Figs and Elixir of Senna."

Our "general guaranty" has been filed with the Secretary of Agriculture and will fully protect the trade in the sale of our remedy, as we will comply with all the requirements of the Food and Drugs Act of June 30, 1906.

Yours very truly,

California Fig Syrup Co.

San Francisco, Cal.

Louisville, Ky.

New York, N. Y.

MADE IN U.S.A.
REGISTERED TRADE MARK

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California College of Pharmacy

DEPARTMENT OF PHARMACY, UNIVERSITY OF CALIFORNIA.

If you want a college education, the California College of Pharmacy invites you to its doors. For a third of a century it has been doing its work, earnestly and honestly trying to help young people to become pharmacists in the true sense of that term. Its internal management and nearly all its teaching have been conducted by practical and experienced pharmacists of progressive tendencies. It stands for better educated and better trained graduates.

FACULTY AND LABORATORIES.

Chemistry.—Professor F. T. Green, Ph.G., lectures, reviews, and exercises in the Chemical Laboratory, eight hours each week for two terms of thirty-two weeks each.

Pharmacy.—Professor W. M. Searby, Ph.C., assisted by Instructor F. W. Nash, Phar.B., lectures, reviews, reading and dispensing of prescriptions and operative Pharmacy in the Pharmaceutical Laboratory, eight hours each week for two terms of thirty-two weeks each.

Botany.—Professor Henry B. Carey, B.S., M.D., lectures, reviews and exercises in the Microscopical Laboratory two hours each week for one term of thirty-two weeks.

Materia Medica.—Professor Henry B. Carey, B.S., M.D., and Instructor F. W. Nash, Phar.B., lectures, demonstrations and reviews three hours each week to the Junior Class and two hours each week to the Senior Class for one full term each.

Physiology.—Professor Henry B. Carey, B.S., M.D., lectures and reviews one hour each week for thirty-two weeks to Junior Class.

Microscopy and Vegetable Histology.—Professor Henry B. Carey, B.S., M.D., lectures, reviews and exercises in the Microscopical Laboratory for two hours each week for one term of thirty-two weeks.

Pharmacognosy.—Professor Henry B. Carey, B.S.M.D., lectures, reviews and exercises in the Microscopical Laboratory five hours each week for one term of thirty-two weeks.

Toxicology.—H. M. Simmons, Ph.G.M.D., lectures one hour each week for sixteen weeks and analysis under Professor F. T. Green, Ph.G., in Chemical Research Laboratory.

Pharmacal Jurisprudence.—Harley R. Wiley, LL.B., lectures one hour each week for sixteen weeks to Senior Class.

Prescription Latin.—F. W. Nish, Phar.B., one hour each week for thirty-two weeks to Junior Class.

Bacteriology.—Professor Albert Schneider, B.S., M.D., Ph.D., lectures, making of cultures, stains, serums, etc., in the Research Laboratory twelve sessions of two hours each.

The above sketch shows the work for the two years' course (Ph.C.). For the Phar.B. degree thirty-two weeks' additional work, chiefly in the Chemical Research and Microscopical Laboratories.

Daily Hours, 8:30 A. M. to 12:30 P. M.

Next term will open about September 3, 1907.

Climatic Conditions.—It is never too hot or too cold in San Francisco to work with comfort. There is no exhaustion or sickness due to heat, cold, or malaria, and zymotic diseases are rare. The new and commodious building erected by the State for the College of Pharmacy is a delightful place to work in, being spacious, light, airy, and well ventilated, and the faculty and equipment are up-to-date.

For fuller information write to the Dean, who will gladly send a copy of the latest announcement, or answer any inquiries.

W. M. SEARBY, Dean,
California College of Pharmacy,
Department of Pharmacy, University of California.
Parnassus Avenue, San Francisco, Cal.

POPULAR PREPARATIONS

MANUFACTURED BY THE

National Pharmacy Company

	Gross.	6 Doz.	3 Doz.	1 Doz.
Boradent Tooth Paste.....	.....	.....	.....	\$1.65
Creme de Camelia.....	\$30.00	\$15.50	\$8.00	2.85
Golden Seal Dyspepsia Tablets.....	.....	.....	.....	1.50
Five-Minute Headache Powders—12's.....	12.00	6.50	3.50	1.25
Five-Minute Headache Powders—4's.....per hundred	.....	.....	.....	5.00
Syrup of Figs Compound—3 oz.....	16.50	8.50	4.50	1.75
Syrup of Figs Compound—6 oz.....	33.00	17.00	8.75	3.00
Orange Honey Compound Cough Cure—25c.....	16.00	8.25	4.25	1.50
Orange Honey Compound Cough Cure—50c.....	30.00	15.50	8.50	3.00
Comp. Syrup of White Pine and Tar, Mentholated—4 oz.	15.00	8.00	4.25	1.50
Comp. Syrup of White Pine and Tar, Mentholated—8 oz.	24.00	12.50	6.80	2.50
Comp. Fluid Extract Buchu.....	33.00	17.00	9.00	3.50
Soothing Pile Ointment.....	20.00	10.50	5.50	2.00
Poison Oak Salve.....	15.00	7.75	4.25	1.50
Carbolic Salve	12.00	6.25	3.35	1.25
Carbolated Witch Hazel Salve with Arnica.....	12.00	6.25	3.35	1.25
Santal Pearls	66.00	34.00	17.50	6.00
Spanish Tansy Wafers.....	60.00	32.00	16.50	6.00
		Per M.	Per D.	Per C.
Antidolor Tablets—No. 1.....		\$2.75	\$1.50	\$0.35
Antidolor Tablets—Nos. 2 to 7.....		6.50	3.50	.75
Cito Quinine Pills—2 gr.....		3.50	1.85	.40
Cito Quinine Pills—3 gr.....		4.75	2.50	.55
		Per Doz. lb.	Per 5 lb.	Per Gal.
Bismuthal		\$12.00	\$4.50	\$7.20
Duopeptothal		7.20	2.50	3.50
Palmothal		10.50	4.00	6.00

NATIONAL PHARMACY COMPANY

MANUFACTURERS

17th and Wood Streets, Oakland, Cal.

THE Pacific Pharmacist

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

Vol. 1

MAY, 1907

No. 1

Published on the Tenth Day of Each Month by
THE GALEN PUBLISHING COMPANY
410 Kearny Street, San Francisco, California

W. M. SEARBY *Editor-in-Chief* ALBERT SCHNEIDER }
J. H. FLINT *Assistant Editor* H. B. CAREY . . . } *Associate Editors*
HARRY KAPLAN *Business Manager*

Address all communications and make all checks and money orders payable to THE PACIFIC PHARMACIST.

Communications on questions pertaining to Pharmacy and the Drug Business are solicited. The name of the writer should accompany every article, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

Foreword

To the Druggists—Proprietors and Clerks—of the Pacific Coast:

For some years it has been felt by many that there was need on this Coast of a journal that should be a means of intercommunication between the members of the retail drug trade; that should serve as a stimulus to research in chemistry, pharmacy, materia medica, botany and allied sciences; that should be available for the defense of druggists from the wholesale and unfounded charges of adulteration, substitution, fraud and extortion which have recently appeared in public print; that should keep the pharmacists of these Pacific States, and of California in particular, informed on the subject of the hostile municipal and State legislation that is being attempted from time to time; and, in general, that should enable the busy druggists who, by reason of their occupation can see but little of each other, to compare notes on matters affecting their welfare commercially, scientifically, politically and socially.

The Pacific Pharmacist comes to you in the hope that it will in some measure accomplish these objects. It will appear monthly and be absolutely independent, devoted to the interests of pharmacy in general, but more especially of the retail drug trade.

THE PACIFIC PHARMACIST

In seeking to carry out the plans which it has made, **The Pacific Pharmacist** will endeavor to adhere to strictly ethical principles without discrimination against vested interests, so long as those interests are protected or exploited by ethical means only. It will be opposed to fraud in every form, from advertisements that adroitly conceal untruths to more palpable misrepresentations, and openly dishonest transactions. It will not condone adulteration nor substitution, neither will it insist upon standards of purity, etc., that add greatly to the cost to the consumer without corresponding benefit.

It will cultivate friendly relations with the medical profession and will gladly coöperate with them in the advocacy of desirable and practicable sanitary and hygienic measures.

While conservative in matters of legislation, it will favor wholesome restrictions upon the sale of poisons and habit-forming drugs. Believing that as pharmaceutical education is advanced the profession of pharmacy will be elevated, it will favor the raising, as fast as conditions will allow, of both the entrance and graduation requirements of Colleges of Pharmacy. Recognizing the great value of Boards of Pharmacy in protecting the public from the dangers arising from ignorance and incompetence, and knowing also the difficulties of their office, it will at all times sustain them in the just discharge of their duty.

Advocating these views as opportunity offers, **The Pacific Pharmacist** hopes to occupy a place that no other drug journal published in the West now fills.

The Pacific Pharmacist will be edited by W. M. Searby, Ph. C., with Albert Schneider, Ph. D., and Henry B. Carey, B. S., M. D., as Associate Editors, and Professor J. H. Flint, Ph. G., as Assistant Editor. It is expected that several well-known Eastern pharmacists and writers will be contributors. It will contain a copious price-current revised for each issue, and much general information on trade matters. Every effort will be made to make the journal indispensable to the pharmacists of the Pacific Coast, whose interest it will primarily try to serve.

Subscribers are offered the free use of this paper for purposes of exchange. Those desiring to buy or sell stores, etc., or needing clerks, and clerks desiring positions, will have their wants inserted in a column provided for that purpose free of charge. Correspondence will be welcomed, and efforts made to solve for subscribers some of the difficulties that arise in the daily routine of the modern pharmacy.

No Eastern publication, no matter how ably conducted, or how lavishly sustained financially, can take the place of a live home journal. As the editorial, scientific and literary work on **The Pacific Pharmacist** will be done by experienced pharmacists and able writers, the publishers confidently anticipate for it a larger circulation on this Coast than that enjoyed by any other pharmaceutical journal.

GALEN PUBLISHING COMPANY, Publishers.

W. M. Searby, President.

H. Kaplan, Secretary.

Editorial Notes

THE CALI- FORNIA PURE DRUG LAW.

In another column we print entire the Pure Drug Law enacted by the last legislature. The following summary of its provisions will doubtless be welcomed by some of our readers who have not taken time to scan closely the various sections and see where they fit into each other.

The law in the main is a good one. It will operate in favor of the pharmacist who conducts his business openly and honestly, while the one who is trying to deceive, corrupt or misrepresent will have a hard time. Yet there are some respects in which we think the bill should have been modified in Committee, and we believe could have been, if the druggists of the State had not very generally left it to the other fellow to attend to. These very men, when in trouble, will cry out, "Why did not 'they' get the bill changed before it was passed?" as if somebody else was expected to attend to their business for them. We will point out the dangers to which we refer in our next issue.

Under this act it is a misdemeanor to manufacture, compound, pack, sell, keep for sale or offer for sale in California, or introduce from any other state or territory, or from any foreign country, any drug that is adulterated, mislabeled or misbranded.

Exception—No article shall be deemed mislabeled, misbranded or adulterated when intended for export to any foreign country in which it would not be in conflict with their laws.

A drug is defined as "any substance or mixture of substances intended to be used for the cure, mitigation or pre-

vention of disease of either man or other animals."

1. A drug is adulterated, etc., when it does not conform to the standard of the United States Pharmacopœia and National Formulary in strength, quality and purity.

Exception—If an article does not conform to this standard it may be sold "if the standard of strength, quality or purity be plainly stated upon the package."

2. If it be an imitation of, or offered for sale under, the name of another article.

3. "If it fail to bear a statement on the label of the per cent by volume of alcohol, or the quality of any morphine, opium, heroin, cocaine, chloroform, cannabis Indica, chloral hydrate, acetanilide, or any derivative or preparation of any such substances contained therein."

Exception is made when such above named substances are prescribed by a "licensed physician, licensed dentist or licensed veterinary surgeon."

The execution of the law devolves upon the State Board of Health (see Secs. 9 and 10), who are required to act upon the report made in each case by "the director of the state laboratory for the examination and analysis of foods and drugs." The law does not provide specifically for the establishment and maintenance of this state laboratory nor for the appointment of the director of it. As this position will be attended by a good fat salary, and form an opening for a number of subordinates, it is pretty certain that some way will be found for obtaining these very necessary parts of the machinery of the new law. While Section 20 implies that one half of the fines collected will be enough to maintain this establishment, after it has once

been set in motion, it is not clear how the bureau will get its first start.

Securing Evidence. Any agent of the State Board of Health or Sheriff has the right to purchase at the place of business of any manufacturer or dealer any "drug which he suspects of being adulterated," and if he tenders the "market price" of said article, the proprietor cannot refuse to sell it. If he calls for an article which is not in sight, it is made a misdemeanor to conceal it or to refuse to tell where it is.

The Director has to make a report each year to the Board of Health of the cases examined by him in which adulterants were found (no other) or articles mislabeled, etc., with the names of the manufacturers, producers, jobbers and sellers, and the State Board of Health may include his report in their annual report to the Governor.

Prosecutions. If the Director of the State Laboratory reports that he has found a case of "adulteration, misbranding, etc.," the party from whom the samples were obtained, or the one who executed the guaranty, if the goods have been sold under one, may appear before the State Board of Health at Sacramento (nowhere else) who act as a kind of grand jury at a private hearing. The supposed adulterator may appear in person or by attorneys, and if he can show that the Director of the State Laboratory has erred, the case is to be dismissed. But if the decision is against him, he has to be formally prosecuted by the District Attorney of his county.

The expenses of the Sheriff or agent in collecting evidence of adulteration, etc., are to be paid by the county.

Penalties. These range from twenty-five to five hundred dollars, with or without imprisonment not exceeding six months. To this may be added, if

the judge sees fit, the destruction of the adulterated drugs found in the druggist's store, cellar or warehouse.

The remainder of the act seems to be in accord with the Federal Pure Food and Drugs Act, so far as relates to "drugs."

The law is to take effect January 1, 1908.

DRUG-CLERKS' SALARIES.

There has been considerable hobnobbing of late among pharmacists in this City, both employers and employes, in reference to the circular recently issued by the Drug Clerks' Union, fixing the minimum salaries of registered pharmacists at \$100 a month. Employers are wondering how they are going to make both ends meet. They are paying rather more for their goods than formerly, expenses of doing business are greater,—rents, insurance, cartage and other incidentals being in some cases almost double—while the druggist's house bills, like everybody else's, have been growing. There is no certainty that this condition of things will soon be improved. Considerable cutting still prevails, causing some articles to be sold without profit, and a good many at an advance over cost that is too small to pay expenses. A few druggists are doing well, the increase in the volume of business more than offsetting the reductions in percentage of profits. All are not thus fortunate; and, while we may say in a general way that business has been prosperous since the fire, this last addition to the store expenses is with some a serious matter.

On the other hand the clerks point to the wages received by persons in other callings, skilled and unskilled, in many cases the latter even receiving as much as the drug clerk, and most of

the former earning more. If lathers, plasterers and plumbers get \$7 a day for eight hours' work, and drivers of brick wagons get \$3 a day for nine hours' work, none of them working on Sundays, it does not seem too much for a pharmacist to ask a hundred dollars a month for work that has in it more of responsibility and longer hours, even though it may be in some cases less laborious. The clerk alleges that his living expenses have gone up just as much as his employer's, and that he has still more difficulty in making both ends meet than has the man he works for.

And so the controversy goes on. Some say they are too busy to discuss these problems; others that they submit to the increase in the belief that it is only temporary. The clerks, however, have no such idea. If this latest move should result in the elimination of the incompetent and unfit, pharmacy would be the gainer.

U. S. P. CORREC- TIONS.

As is well known, the Committee on Revision of the U. S. P. has been engaged for some time past in restudying such features of the pharmacopœial text as have been subject to criticism on the part of manufacturers and others because of the effect of the Food and Drugs Act.

Preliminary to the complete reports concerning the modification of the various tests, limitations on specific gravities, melting points, etc., the following corrections, being reductions of the percentage-strength of active principles in a number of drugs and their preparations, have been approved and these are from now on the official strengths, as follows:

Under the article *Petrolatum*, page 336,

U. S. P., last paragraph, the sul-

phuric acid test has been dropped.

Belladonna Leaf now 0.3 per cent. mydriatic alkaloids.

Belladonna Root now 0.45 per cent. mydriatic alkaloids.

Colchicum Seed now 0.45 per cent. of colchicine.

Ipecac now 1.75 per cent. of ipecac alkaloids.

Stramonium now 0.25 per cent. of mydriatic alkaloids.

Fluidextract of *Belladonna Root* now 0.4 Gm. alkaloids in 100 Cc.

Tincture of *Belladonna Leaf* now 0.03 Gm. alkaloids in 100 Cc.

Fluidextract of *Colchicum Seed* now 0.4 Gm. alkaloid in 100 Cc.

Tincture of *Colchicum Seed* now 0.04 Gm. alkaloid in 100 Cc.

Fluidextract of *Ipecac* now 1.5 Gm. alkaloids in 100 Cc.

Fluidextract of *Stramonium* now 0.25 Gm. alkaloids in 100 Cc.

Extract of *Stramonium* now 1.0 per cent. alkaloids.

Tincture of *Stramonium* now 0.025 Gm. alkaloids in 100 Cc.

Jalap Root now 7 per cent. of total resin.

In view of the use now made of the U. S. P. as the standard recognized by the National and State Pure Drug Bills, the changes printed in this article are important and should be noted in your Pharmacopœia. We shall keep our readers informed of subsequent changes as they may be made by the Committee of Revision.

In another column we print the Drug Clerks' Ten-Hour Law, which was enacted by the last legislature. It is the same as the municipal ordinance which

has been in effect in San Francisco for two or three years. We shall be glad to hear from our subscribers in interior towns whether they find any difficulty in adjusting the store work so as to comply with the new law.

A STATE ORGANIZATION OF PHARMACISTS

While all the more progressive States have live pharmaceutical associations, the druggists of California for about fifteen years have been unable to get together for the consideration of purely pharmaceutical topics, or to hold such pleasant social gatherings as usually accompany the annual meetings of such organizations. Our sister states to the north both have such organizations, which meet yearly in a felicitous combination of business and pleasure. The reading and discussing of papers bearing on science, art, or trade, are agreeably sandwiched in between pleasant social functions. The effect is unquestionably beneficial to the participants, for useful pointers on store management, prescription work, laboratory experience, and other incidents in the varied life of the up-to-date druggist well repay for the time and cost, while the pleasure of the affair is thrown in. Moreover, such gatherings are stimulating to thought and inquiry, and lead to investigation.

In the seventies and eighties, California had an active Pharmaceutical Society which produced many good papers, the discussions on which were often more interesting than the papers themselves, and equally instructive. An effort is now being made to reorganize this society, as will be seen by perusing the copy of the circular that has just

been sent to the druggists of the State. (See page 35.) We ought to lose no time in reviving the former activity of our State society, for we certainly have more pharmacists trained for research work than we had then. If a few will set the ball rolling, this movement will be a success.

An active pharmaceutical society will doubtless in the course of time exert a wholesome influence on the appointments to the State Board of Pharmacy, as well as on the action of the legislature in making laws that affect pharmacists. Such a society will also have some influence in directing pharmaceutical education. These things and others that might be mentioned are vital to true pharmacy, and through an organized body of representative pharmacists, their views will find expression. Educators, law makers, and executive officers all need the stimulus and control of public sentiment, and we hope to see the California Pharmaceutical Society speedily regain its former position as a factor in making, as well as exponent of, the sentiment of the druggists of this State.

The Drug Clerks' Union has experienced no trouble in the adoption of its wage scale. The scale has been conceded by all proprietors in San Francisco and the other bay cities. The jurisdiction of the association extends to Oakland, Alameda and Berkeley. A committee is now forming plans and by-laws for a State Drug Clerks' Association to comprise licensed pharmacists only. San Jose, Sacramento, Stockton and Santa Rosa will be among the first places to receive attention.—S. F. Call, April 17th.

For the convenience of our subscribers, we furnish them as a supplement the foregoing copies of the laws affecting Pharmacy enacted by the last Legislature.

THE NEW PHARMACY LAW.

In order that the druggists of California may be informed as early as possible of the changes enacted in the pharmacy law by the last legislature, we give below a summary of those changes, and print in another column the entire law as amended, so that our readers may have it for further reference.

Section 7 defines the powers and duties of the board. It provides that the board shall meet three times a year, instead of four. This will lessen the expenses of the board and work no great hardship on any one. This section recognizes the National Formulary as well as the U. S. P. as a standard. It also increases the fees for registration, both on credentials and by examination, as will be seen by the following table:

under the direct, immediate and personal supervision of a registered pharmacist, or any person not registered who shall retail medicine, poisons or chemicals except in a pharmacy under the direct, immediate and personal supervision of a registered pharmacist shall be deemed guilty of a misdemeanor, etc. The same words are added in section 13.

A more important change, and one likely to give the Board of Pharmacy something to do, is in relation to "patent" and "proprietary" remedies. We quote the paragraph:

The Old Law.

Nor do general dealers come under the provisions of this act, in so far as it relates to the keeping for sale of proprietary medicines, in original packages. Nor does this act apply to registered or copyrighted pro-

Licentiates' Fees.

	Old Law	New Law	Increase
On experience and credentials, if credentials are rejected..	0.00	10.00	10.00
On experience and credentials, if credentials are accepted.	20.00	25.00	5.00
On examination, if unsuccessful.....	5.00	10.00	5.00
On examination, if successful.....	5.00	15.00	10.00

Assistants' Fees.

For examination	5.00	10.00	5.00
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Section 9 is so amended that "every person holding a certificate from" the Board of Pharmacy has to be registered annually. This includes not only pharmacists and assistant pharmacists, but general dealers and itinerant vendors.

Section 12 is made more specific by inserting the words here printed in black face, so that it reads (as amended) as follows: Any person who shall permit the compounding of prescriptions of medical practitioners, or the selling of drugs and medicines in his or her store or pharmacy, except

proprietary medicines, registered in the United States Patent Office, nor to the manufacture of proprietary remedies or the sale of the same in original packages by persons other than pharmacists.

The New Law.

Nor does this act apply to registered trade-marked or copyrighted proprietary medicines, registered in the United States Patent Office, nor to the sale of proprietary medicines when manufactured under the supervision of a registered pharmacist in the State of California for which trade-marks may have been filed with the Secretary of State of California by merchants possessing a license issued by the Board of Pharmacy as described in Section 16 of this act.

Section 16 gives the board power to issue permits to general dealers in rural districts permitting them to sell "ordinary drugs and household remedies." Does the amended section 12 limit the selling of proprietary medicines to these "merchants," to the exclusion of all other persons except registered pharmacists? Or does it mean that anybody can sell proprietary medicines, provided they have been "made in California" under the supervision of a registered pharmacist, and trade-marked in this State, or, if made elsewhere, have been trade-marked or copyrighted in the United States Patent Office? The language is ambiguous, and for this reason is likely to defeat the object had in view.

Section 14 is amended so as to authorize the board to delegate to an inspector the power to examine an applicant for a temporary certificate and to **issue such certificate.**

Section 15 is amended by addition of the following: No applicant for registration as an apprentice shall be registered as such if such applicant has had more than three years' experience in a pharmacy, but must apply for registration as assistant pharmacist.

Section 16 permits the board to issue permits to general dealers whose stores are not less than two miles from that of a registered pharmacist. Under the old law it was five miles.

Section 17 extends the duty laid upon the chief of police of "incorporated cities" to "every city, town or township." He is required to furnish a list of all drug stores retailing drugs, medicines or poisons, together with the firm name of each store and the names of all employers, managers and owners, stating the capacity in which each one serves. The penalty for false information is raised to twenty (20) dollars as the minimum and fifty (50) dollars as a maximum.

DIPLOMAS LOST IN THE FIRE OF 1906.

The Department of Pharmacy of the College of Physicians and Surgeons announces to their graduates who have had their diplomas destroyed, that they will furnish duplicates upon proof being filed with the Board of Trustees.

Graduates of the California College of Pharmacy, who have had their diplomas lost or destroyed, can obtain a re-issue by applying to the Dean, W. M. Searby, at the college, Parnassus avenue, San Francisco, who will furnish them with the necessary blanks to be filled in and signed. **This should be done without delay**, in order that all may be printed at once, otherwise the expense would be greatly increased.

National Pharmacy Company

With characteristic energy the National Pharmacy Company have re-established their laboratory in a large and well-appointed building in Oakland. Shortly after the fire of April 18th, last year, the manager and superintendent spent several weeks among Eastern manufacturers with a view of obtaining the very latest and best ideas and equipment for the manufacture of their different preparations, and as a result they have installed a plant thoroughly equipped with the very latest "up-to-date" pharmaceutical machinery for the production of their well-known products.

Owing to the great delays in getting machinery and supplies across the continent, caused by freight congestions, they have been much hampered in filling orders; they, however, now report that they are able to fill all orders promptly.

The products of the National Pharmacy Company are well and favorably known and they report trade very active.

SHOULD DRUG STORE EXPERIENCE BE A CONDITION OF GRADUATION?

At their last annual meeting the National Association of Retail Druggists passed the following resolution:

"Whereas, The practical education acquired by daily work behind the counter of a drug store should count as much as or more than the clinical experience so much appreciated and sought after by medical students; therefore be it

"Resolved, That this Association recommend that a drug store experience of at least four years shall be required by Colleges of Pharmacy and University schools of Pharmacy before granting their degree certifying to the competency of the graduate to practice pharmacy."

While we believe that the N. A. R. D. in passing the above resolution fully intended to benefit the retail drug trade by doing something to aid pharmaceutical education, we are convinced that they have not taken a correct view of the question. There has been so much discussion concerning this matter of four years' drug store experience, that we propose to examine it, and see whether it is best that Colleges of Pharmacy shall require this experience of four years as a condition of graduation. But we will first take up the resolutions above quoted.

The preamble recites that the drug store experience of an undergraduate "should count" as much or more than "the clinics in a medical college." It is well that the Association guarded itself somewhat by saying "should" instead of "does" count, for what should be is very different from what is in this connection.

The medical student receives his clinical education after two years of didactic teaching, dissecting, etc. In his clinics he is attended by his professor, who virtually quizzes him while making his attempts at diagnosis, prognosis, treatment, etc., and pointing out

his errors, thus enriching his knowledge in various ways. The student witnesses operations in minor and capital surgery, and is at times privileged to take some small part in this work. And this goes on almost daily for another two years, during all of which time he is under the searching eye of a skilled teacher, selected as professor by reason of his exceptional ability in his special line. The student is not under one man but a dozen, all "select men," and many of them able teachers. How does this compare with the two, three or four years' drug store work demanded? In the latter case he has practically one teacher who generally does not attempt to teach, and often could not do so if he tried. For a large part of the time the young man is little more than an errand boy doing odd jobs around the store or occupied with work that is almost entirely mechanical and scarcely at all educational. Even in the best drug store it is rare for the proprietor or any other person to take pains to instruct the tyro, except to teach him to do certain work, by doing which he can be made worth his salary to his employer. He is simply left to himself, and if he can pick up, as a bright boy will, some points in practical pharmacy, he is welcome to do so. We affirm that this hardly begins to resemble the clinics of a medical school. It is worth something in teaching him business methods, but it has not much value as a part of a pharmaceutical education.

Having set out with an erroneous assumption, the Association proceeds to recommend that four years' drug store experience be required before

granting a degree "certifying" to the competency of the graduate to practice pharmacy." These last words show a misconception of what a diploma is, and this misconception led the N. A. R. D. to a wrong course of action. A diploma from a college of pharmacy does not certify to the competency of the graduate to practice pharmacy. It certifies that the holder thereof has had certain educational opportunities, beginning with some preliminary education, and followed by systematic instruction in those branches of science upon which the art of pharmacy is based. In most colleges it certifies also that he has had a certain amount of laboratory practice, etc., all, however, under the supervision of instructors. It certifies that he has attained a certain degree of proficiency as the result of these opportunities, that he has acquired a certain knowledge of chemistry, botany, materia medica, pharmacognosy, pharmacy, etc., that he has acquired a certain degree of skill in the application of the knowledge thus acquired, and that he is familiar with the use of certain apparatus and appliances used in chemistry, pharmacy, microscopy, etc., and that he has made sufficient progress to be permitted to carry on his studies without the further direction of a teacher, and has the scientific and technical education needed by a pharmacist. A diploma from a college of pharmacy is a document that deals with science and art, not with trade. The mixed nature of the prevalent drug business, which consists in part of buying and selling goods, and in part of the application of science and art, calls for qualities in a pharmacist which are rarely found in one individual. Employers want clerks who can sell goods, please customers, keep books, keep the store in order and do a lot of things that pertain to ordinary

commercial life, and at the same time be good laboratory men, quick and capable at the prescription counter. All of these qualities, if ever found in one man, are not to be seen until he has had a number of years' experience. We see no reason why a student should not obtain his education in pharmacy and receive his diploma on the satisfactory completion of the curriculum, the same as he does when he leaves the grammar school, the high school, the college of letters, science or medicine. Even the higher degrees granted in the university do not certify that the holders thereof are good business men, or that they know how to manage men and women, or that they have had experience in applying the mental power that their college course has given them, or that they have any other qualifications which the N. A. R. D. looks for in licentiates in pharmacy. The scientific education of the pharmacist is one thing; his practical education as a business man is another. The two are distinct and should not be confounded.

But there are other qualifications that are essential to the one who is competent to practice pharmacy, which cannot be learned from a college course. He who is to conduct a pharmacy needs common sense, and some knowledge of human nature; he should know the value of goods, how to buy them, how to sell them, how to treat customers, how to anticipate the wants of those who ignorantly call for the wrong thing, and how to meet the expectations of intelligent people who have some correct knowledge of the articles they call for. Now a diploma does not certify that a man has common sense or tact in the management of customers, or quickness to perceive the errors which they make; it does not certify that he has a pleasing address or is a good salesman, nor that he

knows the value of goods, nor that he is industrious, honest, tidy, careful; or, in short, that he has any of the personal qualities, or business qualifications to make him a successful proprietor or clerk, other than those which he derives from a scientific education, and practical experimentation in a pharmaceutical laboratory. The college with which the writer is connected granted diplomas for nearly thirty years, only after the candidates had had four years' experience, as was done by nearly all of the schools of pharmacy at that time. But the faculty felt that they were thus placed in a false position, because they had virtually to vouch for the educational sufficiency of this experience, or so much of it as had not been had under their instruction. They concluded that the correct thing to do was to extend their curriculum and especially the laboratory operations so that they could conscientiously confer degrees upon the theoretical and practical work done under their own supervision. Only in this way could they consistently certify to the value of the graduates' experience. Having carried out this idea, they no longer demanded drug store experience as a condition of graduation. But inasmuch as the degree, "Graduate in Pharmacy" had been conferred by the best schools only after four years' experience they were careful to no longer grant a degree by that name.

Most of our readers know that when a degree of "Graduate in Pharmacy" was first conferred (now eighty years ago), the apprenticeship system was in vogue, and young men received instruction in college only after they had served a four years' apprenticeship. However defective the teaching may have been in those days under the apprenticeship system, it was probably much better than the instruction (if

such it can be called) now given to a young man who works for two years in one store as an errand boy, for six months in another at a soda fountain, and for a year and a half as boy of all work in a third. Apprenticeship is now obsolete. Employers do not bind themselves for a consideration to teach their junior clerks anything. They simply hire them to work, and pay them wages according to the agreed value of the services rendered. Furthermore, drug store work is very different from what it was fifty years ago. Then the apprentice made or helped to make almost all pharmaceutical and toilet preparations; now he makes scarcely any. Then he garbled, sorted, sifted, ground, and in other ways handled drugs, preparing them for sale; now crude drugs are but little used, and he sees but little of them. Then, the employer usually tried to teach what he knew; now he leaves all that to the college. Why then should the college diploma depend upon what his employer is supposed by a convenient fiction to have taught his "apprentice?"

The question now arises, is any drug store experience needed before a young man can receive a document certifying to his "competency to practice pharmacy," if he has already had two or three years' college education and received his diploma? Admitting that he needs experience to fit him to profitably manage the business end of his calling, is he not well qualified to conduct the purely pharmaceutical part? The writer believes, and it seems to be almost the universal opinion, that such a person does need some drug store experience before he should be given a license to practice pharmacy. Upon whom then, should rest the responsibility of determining the educational value of the experience thus gained? Upon the Boards of Pharmacy, and it

is for them to certify to his competency to practice pharmacy when they have satisfied themselves that he has received the needed pharmaceutical instruction and training and has learned, by experience behind the counter, how to apply the knowledge he has acquired in college to the ever-varying circumstances of the store. And if he be not a college-bred man, it is their province to ascertain, by a sufficiently full theoretical and practical examination, whether he has, by dint of hard study and actual practice, unassisted by college tutors, acquired the requisite knowledge and skill.

This conception of the functions of the Board of Pharmacy assumes that they are competent to pass upon the qualifications of the candidates who come before them, and regards them as exerting a valuable check upon colleges that graduate students upon insufficient attainments. And as the boards are composed almost exclusively of men actually engaged in business, they are the fittest persons to pass upon the value, educationally considered, of credentials certifying to the "experience" candidates have had in various drug stores.

In view of what has been said, it is scarcely necessary to add that if the N. A. R. D. had stated in the above resolution that four years' drug store experience should be had before Boards of Pharmacy certified to the competency of persons to practice pharmacy, this lengthy article would not have been written.

No Other Hope.

Railroad Surgeon—"I advise you to stop smoking for a while."

Patient—"I don't smoke."

"You must also stop drinking."

"I don't drink."

"You mustn't worry so much about business affairs."

"I don't worry; I am independently wealthy."

"Then I must operate for appendicitis."—Travel Magazine.

THE DRUGGIST'S SONG OF HIS WOES.

By J. H. Redsecker, Ph. M.

With limbs that were aching and sore,
With eyes that were heavy as lead,
A druggist was waked from his peaceful dreams

By the sound of a bell o'er his head.
He yawned, and stretched, and sighed,
Then hurriedly pulled on his clothes,
And seizing a light, as he went down-stairs
He sang this song of his woes:

Work! Work! Work!

From early till long after ten,
When, weary and worn, you seek repose
You're sure to be called up, and then
You'll find a boy for some peppermint,
Or more likely an impudent scamp
Has waked you at the midnight hour,
For a two-cent postage stamp.

Rub! Rub! Rub!

Mix calomel, nitre, and squills,
Till your arms do ache and your brain's in
a whirl,
Making powders, and potions, and pills.
No wonder I fret and fume
No wonder were I to weep,
When I think how I work through the day
and night,
And never get rest nor sleep.

Work! Work! Work!

Though my body's racked with pain;
And it's work, work, work,
Till the daylight comes again!
Prescriptions I fill with care,
As my lonely vigils I keep—
'Tis a pity that epsom salts is so dear,
And a druggist's life so cheap.

Thus night after night I'm waked,
And night after night I toil;
Here's one who wants Kidney and Liver
Cure,
And another St. Jacob's Oil.

As the long, long hours passed by,
Without e'en a chance for a doze,
The druggist worked at his mortar block
And sang this song of his woes.

THE N. A. R. D. RELIEF WORK

By W. B. Cheatham

Approximately the N. A. R. D. Relief Committee has paid out nearly \$35,000. Of this amount over \$25,000 was taken as loans, in amounts ranging from sums of \$300 down to sums of \$50; the time of repayment being adjusted to suit the borrower. Some have already returned the money to the fund, but on account of the failure to collect insurance, or unexpected expenses many short time loans have been extended. More than \$6,500 has been given to owners and clerks. Expenses including the salary of a good attorney, printing, postage, etc., traveling expenses of investigating committee, office rent, telephone, and salary of the secretary and an assistant have been less than \$3,000 for the year.

The attorney has attended to leases, suits, collecting insurance, and has furnished advice on nearly every conceivable subject.

The secretary for nearly a year has kept the office open day and night, and he has gotten around the city as best he could in the early days mostly on foot, later by wagon, and now by the cars, seeking those who needed aid and would not call to ask for it.

A little more than a year has passed and not many newly opened drug-stores can one enter without finding an owner or clerk who has benefitted by the kindness and liberality of those who remembered them in their darkest hour, with sympathy that proved real and substantial; sympathy that meant an opportunity to provide homes and comforts to those dependant on them; sympathy that meant aid to reestablish business; to some, sympathy that paid their bills while they lay sick or crippled

in the hospitals; to others who are very old and unable to work it means their only support at present. To the widow and her children it has been an incalculable blessing. Quietly, tenderly it approached the home where an aged sentinel of pharmacy had looked his last time upon those he loved best, and bore him away to the silent city, nestling among the green sloping hills that guard the last resting place of those only who have left friends behind them.

Let those who extended such real tangible sympathy know that many a voice is more kindly, many a step more elastic, many an eye brighter, many lives more buoyant with hope for the future because the appeal of the great organization was heeded that invited them to come to the relief of the unfortunate druggists while the earth still trembled and the flames glowed among the ruins of all their earthly possessions. Surely the spirit of fraternity has been exemplified between druggists as never before, in the appeal and in the response that brought hope, comfort and encouragement, that stood and still stands, and will so continue as a monument, commemorating a lasting refutation of the oft repeated charges that the druggist thinks not and cares not for any one or anything not within his immediate horizon.

We print elsewhere the amended Itinerant Vendor Bill. The changes consist chiefly in substituting a six months' for an annual license, at the same rate—two hundred dollars a year. But, being divided into two payments, the tax will be less onerous to the vendor, and will probably increase the revenue.

THE BENEFITS DERIVED FROM THE FEE OF REGISTRATION

(By Charles Whilden, Secretary of the State Board of Pharmacy)

The remark has often been made by pharmacists of this State that they can see no benefit derived from the payment into the Treasury of the State Board of Pharmacy of fees for re-registration, and today the questions are frequently asked, "What becomes of the money that is sent to the Secretary of the Board on the first day of July of each year?" "What return do I get for this investment?" It is with the desire to enlighten those who make such inquiries, and to encourage their coöperation, that we shall endeavor to answer these queries.

A majority of the States of the Union have deemed it wise to enact laws regulating the practice of pharmacy and the sale of poisons, placing the dispensing of dangerous substances in the hands of those, who, by reason of special education and practical training are properly qualified to assume such responsible duties.

The products of the drug store, be they from the drawer, shelf, laboratory or prescription counter, go direct to the patient, usually to be taken into the human system, with practically no knowledge by the patient of what he is taking, he, as a matter of necessity, having to depend upon the professional ability and the integrity of the dispenser, and he generally does so without hesitation.

The patient or his agent, enters the drug store and has his order filled; he has absolutely no way of determining whether the person filling his order is competent to do so or not—he has confidence in the management and presumes that only competent help is em-

ployed, but sometimes this confidence is abused, as we all know; how, then, is he in his innocence, to be protected from such abuse of confidence? The Legislature in its wisdom has provided for this protection by enactment, making it "unlawful for any persons to manufacture, compound, sell or dispense any drug, poison, medicine or chemical or to dispense or compound any prescription of a medical practitioner, unless such person be a registered pharmacist or a registered assistant pharmacist." It has further provided that to become a registered pharmacist or registered assistant pharmacist a person must prove his competency by a method, which, although not perfect, is the best yet devised by man, viz., by examination, and it prescribes that such examination shall be conducted, not by the preceptor, employer, or other individual selected by such person, but by "seven competent registered pharmacists, residing in different parts of the State who serve as a Board of Pharmacy, the members of such Board being appointed by the Governor.

That the public needs this protection, no sane man would deny; yet the Legislature has not deemed such protection of sufficient importance to make an appropriation from the State Treasury for the purpose of enforcing the law which it has enacted. California is not singular in this respect, for up to the present time there is not a single state, so far as we are informed, that makes an appropriation from its treasury for the enforcement of the Pharmacy or Poison Laws. We believe

legislation is now pending in Minnesota and Illinois which has as its object an appropriation from the State Treasury for the maintenance of the State Board of Pharmacy, and dispensing with the re-registration fee.

The Legislature evidently takes the view that restricting the dispensing of drugs and poisons to registered persons only, diverts the business to a limited number of the inhabitants of the State, and as they secure a direct pecuniary benefit, they should support the law which produces such benefit; yet this could not be construed as legislation for the benefit of certain persons, as there are no restrictions put upon any person, preventing him from entering the practice of pharmacy, provided he complies with the requirements laid down by the statutes, as has been done by those who are practicing this profession to-day. The field is open to all, and they can enjoy the benefits (or suffer the vicissitudes and privations) of compounding and dispensing drugs and medicines if they will fulfil the conditions of the law, as is required in any calling. A physician, a dentist, a veterinarian cannot practice his profession, a plumber cannot follow his trade, an undertaker cannot bury the dead until he has complied with certain legal requirements, yet we would not construe the laws applying to these various callings as special or class legislation, because, while they apply to certain vocations, the enforcement of the law is for the protection and benefit of the entire commonwealth, and no one is restricted from deriving any pecuniary profit which may accrue to him through the pursuit of such vocation.

Let us consider for a few moments whether the druggist does derive any benefit from the re-registration fee he

pays each year. This fee is intended to, and does in part, maintain the Board of Pharmacy. The Board of Pharmacy enforces the law, thus preventing illegal competition; hence it brings business to the drug store which would be divided with an unqualified competitor were there no law to prevent such competition. Therefore, considered from a purely commercial standpoint, the re-registration fee brings a greater return on the outlay than any other investment of the druggist. As to the constitutionality of this fee, we have been in doubt, and are sustained in this opinion by a decision recently rendered by the Supreme Court of Minnesota, which reads in part as follows: "Sections 2327-2341, Revised Laws 1905, being a comprehensive statute regulating the business of pharmacy in this State, creating a State Board of Pharmacy and prescribing its duties,—is held to be a proper subject for legislative supervision under the police power, and not unconstitutional. The license fee imposed by the statute for the issuance or renewal of a license is not a tax upon the business of pharmacy, but a charge upon those engaged in that occupation for the support and maintenance of the machinery provided for its regulation. The amount, therefore, is not unreasonable." This decision bears out the view of the California Legislature as interpreted by the writer in a foregoing paragraph of this article.

That it is the determination of the Board of Pharmacy to do their duty is clearly shown by the vigor with which they have procured evidence and prosecuted violators. During the past year there have been a number of prosecutions and convictions; these cases have not been confined to any one locality, but have been scattered in different

parts of the State. During the past three weeks there has been evidence secured in seventeen cases in San Francisco, and complaints sworn out. In case number one, the accused took fright and left the State before the warrant could be served. This warrant remains in force, and the accused will be arrested should he return to this State and be located. In the second instance the complaint was defective, and the case was dismissed without prejudice, which means that a new complaint can be drawn on the same evidence. In cases numbers three and four very clear evidence was procured that unregistered boys had been left in full charge of pharmacies, and sold, without supervision, carbolic acid. These cases were tried before juries, but as in each case perjured testimony was given by certain witnesses for the defense, a doubt was raised in the minds of the jury, and the accused parties were acquitted. Not so fortunate were the defendants in cases numbers five, six, seven, eight, nine, ten and eleven, where the drug purchased was not as poisonous as in the two previous cases. In cases five and six, the evidence was camphor; in case seven, tincture of belladonna; in cases eight and nine, the evidence was quinine; in case ten, tincture of gentian and quinine tablets; in case eleven, the proprietor was convicted for leaving his unregistered clerk in charge without supervision of a registered pharmacist. In each case conviction was secured and a fine of \$20 imposed with the threat of a heavy fine for future offenses. Some of the other cases have been set for trial, and they will all come before the courts in due course.

It would be well for every phar-

macist of the State to familiarize himself with the laws that are especially applicable to his business, for ignorance of the law is no excuse. Many have the impression that an unregistered employee can be left in temporary charge, and even sell drugs that are not poisonous. No drug, medicine or poison can be sold except by a registered pharmacist or a registered assistant pharmacist or under his direct, immediate and personal supervision. The physician can supply his own patients with such remedies as he may desire, but cannot keep a pharmacy, and of course, unless he is also a registered pharmacist, cannot supervise the unregistered person. The general dealer can only sell simple household remedies put up by a registered pharmacist if his store is two miles from a properly conducted drugstore and has a permit for which he pays a fee of \$12 a year. The law is for the purpose of regulating the practice of pharmacy. The Board of Pharmacy is appointed to see that the provisions of that law are carried out, and those interested should understand clearly that the Board will do so. The public must, and will be, protected from the unscrupulous druggist who places them in jeopardy by permitting incompetents to assume responsibilities for which they are neither mentally nor legally qualified. They need no protection from the conscientious pharmacist who always complies with the provisions of the law and employs only experienced assistants. We are glad to say these are in the large majority, and are found ever ready to give their coöperation and moral support to the officers who, although the task be a disagreeable one, are determined to fulfil their obligations.

THE NATIVE AND INTRODUCED POISONOUS AND MEDICINAL PLANTS OF CALIFORNIA, WITH SUGGESTIONS ON DRUG CULTURE*

By Albert Schneider, Ph.D.

I. Introduction.

The United States pays out about eighteen million dollars annually for imported drugs. Some of these are from tropical countries and cannot be grown within the bounds of our native country, but the majority of plants used in medicine which have been imported heretofore might be cultivated without any difficulty whatever. Furthermore, there is a steadily increasing shortage of such wild-growing native medicinal plants as are collected at home. Sooner or later these must be cultivated to prevent extermination or stringent paucity.

That medicinal plants may be grown profitably has been proven by the several isolated attempts in widely separated areas of the United States. The following suggestions are intended to serve as a stimulus as well as a guide to those interested in the cultivation of medicinal plants, primarily in California, also in other States.

Within recent time the pharmaceutical press has had much to say regarding the scarcity of certain native drugs, as belladonna, hyoscyamus, hydrastis, senega, and others. Some anxiety begins to arise concerning the future supply of cascara bark. These facts coupled with numerous inquiries received regarding suggestions on the cultivation of medicinal plants in California have prompted this paper.

The present tendency in medical and pharmaceutical botany is toward greater simplification. The variety of plants now used medicinally is but a small

percentage of those which have been used in the past, and the process of "weeding out" is still going on, as is shown by the fact that in the new United States Pharmacopoeia about forty crude vegetable drugs are excluded while only three or four new ones are admitted. This process of reducing the number of vegetable drugs does, however, not imply that the work of studying new and old medicinal plants is correspondingly lessened or simplified. Rather the reverse is true. Botanists, chemists, physiologists, and pharmacologists must extend their investigations into fields still unknown or imperfectly understood. There is, for example, much uncertainty as to the identity, origin, and physiologic action of many long-used vegetable drugs, as the sarsaparillas, the cinnamons, the rhubarbs, cacti, the cinchonas, coto barks, and others. Many of the newer medicinal plants require further study and many of the so-called poisonous plants will no doubt prove very efficacious medicinally. There are undoubtedly in existence many new and therapeutically unknown plants which future investigators will place to the use of medical practice. The medicinal use of drugs, vegetable and others, is based largely upon empiricism, and no one can state definitely what the future scientific progress in medicine may develop. Recent bacteriological research has completely revolutionized certain phases in the treat-

* The introductory portion only of this paper was published in the "Pacific Drug-gist" in 1906.

ment of diseases, and it is highly probable that the present use of drugs will be changed completely or even discontinued in the future. But in accordance with our knowledge of things it is an obligative duty to study vegetable drugs as thoroughly as possible, in order that the best results may follow their use in disease. The study of known and unknown medicinal plants would be greatly advanced by the establishment of experimental gardens of medicinal plants, scientifically conducted. Such gardens have been in active operation for centuries in Europe, and effective efforts in this direction are now being made in various parts of the United States. The United States Department of Agriculture is now maturing plans to establish an experimental seed garden in California, in which are to be grown economic plants (including medicinal plants) of all kinds, and the seeds of these plants will be sent to all parts of the United States with a view to finding localities suitable for their profitable cultivation. A garden of medicinal plants has been established at Golden Gate Park, San Francisco, in which about five hundred species are now under cultivation, and further additions are to be made each year. Many medicinal plants are also grown in the University gardens at Berkeley, California. Many foreign medicinal plants have been introduced into California by private individuals and a number of private economic and pleasure gardens are still in existence in various parts of the State. Gardens of medicinal plants are to be established at New York (New York Botanical Garden), Philadelphia, and at the Indiana State University. In addition there are gardens of medicinal plants operated in connection with the following colleges of pharmacy: Scio College, Department of Pharmacy;

University of Michigan, School of Pharmacy; Purdue University, School of Pharmacy; Brooklyn College of Pharmacy; St. Louis College of Pharmacy, and perhaps several others of whose existence the writer is not aware. All of these beginnings, when more fully developed and in full operation, will be important factors in perfecting our knowledge of the cultivation, constituent properties, and uses of the medicinal plants, native and introduced, of the United States.

1. Flora and Climatic Conditions of California. — California is a large, mountainous State, and has a wide latitudinal and altitudinal range. Along the entire coast the temperature is kept quite uniformly mild by the Gulf Stream. Thunder-storms and cyclones are unknown. The coast winds blow in one direction for about eight months of the year. Snow is formed on top of the mountains. There are two sharply contrasted wet and dry seasons. In and about San Francisco there are about three months of heavy rains, namely January, February, and March, with a few rains in December and April. From about the 1st of May to the close of November there is no rainfall worthy of mention. Toward the north from San Francisco the period of rainfall is increased; toward the south it is decreased. At Los Angeles and south the rainfall is much less and irrigation is necessary to insure crops. The persistent "high fogs" during the months of July and August are a peculiar feature. These fogs come in from the Pacific Ocean and cause the temperature to fall considerably, so that it is unpleasantly raw and chilly, demanding the use of a light overcoat for outdoor wear, and a fire in the grate to make the interior comfortable. Some natives declare that July and August are the coldest months of the year.

This is, however, not true. In January and February there are several white frosts, occasionally forming very thin ice over mud puddles and very small pools.

The climate of the interior of the State is very variable, according to locality, differing from the immediate coast belt of approximately the same latitude and altitude in that the winters are colder and the summers hotter. The rainfall is variable. There may be snow in the winter, and in many localities there are thunder-storms and electrical displays.

Local variations in meteorological conditions are remarkable, a distance of from ten to thirty miles showing great differences in temperature, number of foggy, cloudy and cold days, annual rainfall, daily and nightly variations in temperature, etc. There may be a dense, cold fog in a given limited area while a locality half a mile distant may be very warm with the brightest sunshine. This is to be expected in consideration of the altitudinal variations, alternation of hill ranges and valleys, interrupted by higher peaks, river valleys, etc. The new arrival in the State is forcibly impressed by the browned hillsides during the summer months and the emerald verdure during the winter. Grasses and annuals generally die as soon as the dry season sets in.

Even more impressive is the flora of the State, as might well be expected from such a peculiar climate. In the middle and even in the northern portions of the State along the coast and in the valley interior the vegetation has a tropical aspect, due to the palms, cycads, yuccas, aloes, century plants, magnolias, figs, banana plants, lemons, carobs, olives, oranges, eucalypti, and other plants, which are not found in the open in the central, eastern and

northern United States. This is surprising because of the prevailing coolness (not coldness) of the atmosphere. Wild oats, wild rye, and other grasses are common and cause the prompt green coloration of hillsides within a few weeks after the first heavy rain-falls in the autumn. Among the native trees are the incomparable giant sequoias, the tall pines, and the enormous gnarled oaks. The multitude of varieties of introduced eucalypti and acacias form the striking feature of the California flora. Many remarkable foreign plants have become well established, as the ginkgos, casuarinas, tree ferns, araucarias, palms, cycads, pepper trees, and others. Plants which in the East are known only as small herbs here assume tree-like proportions, as the hydrangeas, fuchsias, geraniums, the lemon verbenas, and others. Evergreen trees predominate, though such deciduous trees as the cherry, apple, plum, poplar, maple, walnut, hickory, and many others do well and are extensively cultivated. Most of the subtropical plants are from Australia, southern Europe, and Mexico; many are now being introduced from the Philippines. Some are from South America, the West Indies, Italy, and Spain, with stragglers from other tropical and subtropical countries. Under cultivation, with suitable soil and drainage, the vegetation grows with remarkable rapidity and luxuriance. Some plants will not thrive well because of the prevailing cool nights, as Indian corn, cotton, and sugar cane.

With a flora so remarkable and varied it is reasonable to expect the presence of a comparatively large number of plants which have or may have medicinal value. This will be borne out by the list of medicinal plants reported from the State. Many of these require further careful study with re-

gard to active constituents and physiological activity. Aromatic, fragrant and spicy fruits, trees, grasses, and herbs are abundant. The medicinal uses of many have been learned through the Indians, early Spanish missionaries and settlers. Sooner or later it will become necessary to establish plantations and cultivate the more common and useful medicinal plants, as for example the rhamni, in order to prevent their extermination by the collectors.

2. **California Dealers in Vegetable Drugs.**—In order to ascertain certain facts with regard to the commerce in California vegetable drugs, a letter was addressed to the leading wholesale drug-houses in San Francisco, asking for a list of vegetable drugs which were obtained from the State. Prompt replies were received and with one exception the following are the drugs secured from the State which were offered for sale at regular market value: **Cascara sagrada, Yerba santa, Yerba buena, Berberis aquifolium, Grindelia robusta, Angelica root, Absinthium, Marrubium, and Eucalyptus leaves.** The one exception was the F. A. Weck Company, who gave a much longer list, as follows:—

Berberis aquifolium root
Cascara sagrada bark
California laurel leaves
Damiana leaves
Eucalyptus globulus leaves
Eschscholtzia californica
Grindelia robusta
Grindelia squarrosa
Kava kava root
Manzanita leaves
Rhus toxicodendron
Yerba buena
Yerba reuma
Yerba santa
Wild potato root (man in the earth)
Mullen leaves
Mullen flowers
Skunk cabbage root
Skunk cabbage leaves
Wild cucumber root
Angelica root
May weed herb
Scouring rush

Pine buds
Pine needles
Plantain leaves
Plantain root
Wormwood herb
Horehound herb
Linden flowers
Sage
Thyme
Summer savory
Sweet marjoram
Red clover flowers
Peach leaves
Raspberry leaves
Strawberry vine
Garden lettuce
Hops
Orange flowers
Orange peel
Orange pits
Apricot pits
Red rose leaves (petals)
Pale rose leaves (petals)
Pumpkin seeds
Watermelon seeds
Mustard seed
Canary seed
Rape seed
Hemp seed
Flax seed
Low mallow
Wild sage
Spikenard
Burdock root
Buckeye bark
Buckeye leaves
Milk weed
Horse radish
Cherry Stems
Poppy heads
Coriander
Fennel
Caraway
And others.

The information gained was somewhat surprising, on the one hand because not more drugs were secured from the State, and secondly because the Weck Company supplied comparatively such a large number from the State. From several interviews with Mr. F. A. Weck* it was ascertained

* Mr. Weck is the Pacific Coast pioneer in developing the commercial resources in native drug-yielding plants. He has been in business in San Francisco for over twenty-five years, and it is to be regretted that he is now going out of business, doubly regrettable because there seems to be no immediate prospects of some one else continuing the business along lines which promise so much toward establishing a trade in California vegetable drugs. His long experience would be of great interest to drug dealers and he has promised to give us some of his business experiences in the form of a paper in the near future.

that the maintenance of such a list was uncertain for several reasons. The principal one was high American labor versus cheap European labor. A crude vegetable drug (with exceptions) can be imported at less cost than it can be secured at home. Mr. Weck is a very keen observer who has made a special study of the vegetable drug resources of the State and what vegetable drugs may be secured and collected with profit. His usual plan was first to find out what crude drug or drugs were wanted and then to find men who would sign a contract to collect, cure, and deliver to him the desired quantity of the drug at a stipulated price. In many instances these contracts were signed with parties living in the region where the drug-yielding plants were abundant. Thus car-load lots of cascara bark have been supplied through him to Eastern and foreign manufacturing houses. He encountered many difficulties with collectors. For example, one collector, in whom the commercial instinct was evidently highly developed, signed a contract to supply a certain amount of crude California vegetable drug at a stipulated price. Mr. Weck found out afterwards that the man had simply secured the drug (procured from Europe) from another wholesale drug-house a few blocks away and made a fair profit in the remarkable transaction.

The general conclusions which may be deduced from these conversations with Mr. Weck are as follows: The wholesale dealers as well as wholesale manufacturers give little attention to the source of the drug, manner of collecting, drying, etc. They desire a clean, neat-looking article at the very lowest figure. If an English house can supply digitalis leaves, hoarhound, and mint more cheaply than a California house,

then these articles will be imported, even though they may have been rendered comparatively inert through careless packing, storing, age, etc. A San Francisco house will import hoarhound from England, though that commodity is a common weed throughout the State. It appears that in order that a drug may be profitably procured in the United States there must first be a large and reliably constant demand and the drug must be collected on a large scale with the aid of suitable mechanical appliances and machinery. Collecting on a small scale is not profitable. Drying must be done in the open and the drug shipped in bulk, in boxes or barrels. To illustrate: In order to make the marketing of black and white mustard profitable, it must be grown in extensive fields, cut by means of a mowing machine before the pods are fully ripe, allowed to dry partially, like hay, raked in heaps by means of a horse and rake, and then the seeds flailed out by means of a flail or threshed out by machinery. *Eridictyon californicum* plants are cut down, dried, and the leaves removed by flailing, which accounts for their broken condition.

3. What Drugs May Be Collected Profitably.—From what has been said it is evident that even though a medicinal plant is very common in the United States, marketing the drug is not profitable because of expensive labor and other conditions. This condition of affairs is made clear in a circular issued by the United States Department of Agriculture on the common medicinal weeds of the United States. (Alice Henkel: Weeds Used in Medicine, Farmer's Bulletin No. 188, U. S. Dept. Agr., 1904.) In this paper the suggestion is made that the medicinal weeds mentioned might be col-

lected by the farmer and placed on the drug market. To this end the necessary directions are given as to time of collecting, part of plant used, curing, garbling, etc. This plan, it is hoped, would not only rid the farm of the objectionable weeds, but would at the same time be a source of revenue, slight though it might be. It does not seem a wise act to give these suggestions, for several reasons: The farmer is chiefly interested in his crops and other farm products, knows little or nothing about drugs, cannot always take the time to collect the drug at the right time, and cannot take the time to collect, garble and cure it properly. The attempt would simply result in a poor quality of drug being placed on the market. Drug-marketing should be done by those who understand it and are ready to make a business of it. On studying the market value of the medicinal weeds mentioned it will be found that the average price per pound of roots and leaves is from five to seven cents, a sum entirely too small to make it worth while to collect comparatively small quantities, which would be the case on all well-cared-for farms. No farmer would care to permit his farm to go to weeds in order that he might sell these to a druggist. The following is the list of medicinal weeds as given by Miss Henkel: *Achillea millefolium* L., *Agropyron repens* (L.) Beauv., *Arctium lappa* L., *Brassica nigra* (L.) Koch, *Chenopodium ambrosioides* L., *Chenopodium anthelminticum* L., *Cnicus benedictus* L., *Conium maculatum* L., *Datura stramonium* L., *Digitalis purpurea* L., *Eupatorium perfoliata* L., *Grindelia robusta* Nutt., *Grindelia squarrosa* (Pursh.) Dunal, *Leptilon canadense* (L.) Brit., *Erigeron canadense* L., *Lobelia inflata* L., *Marrubium vulgare* L., *Nepeta cataria* L., *Phyto-*

lacca americana L., *P. decandra*, *Rumex brittanica* L., *Rumex crispus* L., *Rumex obtusifolius* L., *Tanacetum vulgare* L., *Taraxacum taraxacum* (L.) Karst., *Sinapis alba* L., *Verbascum thapsus* L., all of which are more or less common in California.

A large number of drug-yielding plants can no doubt be grown profitably in the United States, but as indicated, this is possible only when done on a large scale. The climate of California is peculiarly adapted to the cultivation of medicinal plants, as has been proven experimentally, and it is to be hoped that some enterprising individuals may make a beginning in establishing plantations of medicinal plants like those of England and other European countries. Attempts have been made with the poppy, and it was found that the opium obtained was of excellent quality, but on account of high labor it was impossible to compete with the Oriental market. It might be a wise plan to decide upon some other method of securing the opium. One method which has been tried, was to cut the plants at the proper time, express the juice from the entire plant by means of a sugar-cane mill, and evaporate to the proper consistency. It was however found that the alkaloidal yield of this gum opium was very low. The statements made with regard to poppy cultivation apply also in a general way to the cultivation of the camphor tree in California.

II. Suggestions on the Cultivation of Medicinal Plants in the State of California.

The plants to be cited in the second installment of this paper are, with few exceptions, found growing within the boundaries of the State. Many more may readily be introduced. It is how-

ever not intended to imply that all even of this limited number of medicinal plants may be grown profitably. Some of the difficulties in the way have already been referred to, the chief one being high-priced American labor *versus* the cheaper foreign labor. While we cannot at present adjust this difference, we may nevertheless put into operation ways and means which will make the cultivation of drug-yielding plants profitable. First of all it will be necessary to create an interest in that kind of plant-culture. Such an interest has been created in other countries, notably in England and Germany, where certain medicinal plants are grown on an enormous scale, sufficient to supply the market of the world. Just as we compete successfully or excel in certain branches of horticulture, agriculture, arboriculture, etc., just so may we compete successfully or excel in the growing of medicinal plants. All that is necessary is for enterprising and intelligent individuals to establish plantations of suitable medicinal plants, in suitable localities, growing them on an enormous scale, and put into operation the appropriate methods of cultivating, collecting, drying, marketing, etc. Beginnings should be made with those drugs which will find a ready market. It being once demonstrated that the enterprise is financially profitable as well as otherwise successful, no difficulty will be found in successfully growing any medicinal plant adapted to soil and climate. Not only is it necessary to compete with the foreign market, but the enterprise must yield a profit equal to that from other soil-cultural pursuits. There is no plausibly apparent reason why this should not be possible. If, as the Department of Agriculture suggests, the

farmer of the United States may hope to collect medicinal weeds profitably, he will find it certainly even more profitable to devote his entire time and energy to the intelligent culture of medicinal plants, whether weeds or not. All that seems to be required is for some one to take the initiative to prove to others the feasibility of the scheme. Interest is being awakened in the matter, as is shown by letters of inquiry as to what plants might be cultivated successfully. A few medicinal plants are being cultivated in the United States, as the mints in Michigan and Wisconsin, crocus in Pennsylvania, etc. It is affirmed that African senna (*cassia acutifolia*) has been successfully grown at Corpus Christi, Texas, and at Washington D. C. (Dr. True, rep. in lit.)

As has been indicated elsewhere, most medicinal plants may be grown in the State of California, though it does not follow that these may all be grown profitably. The following suggestions may prove useful to those who contemplate entering upon the suggested enterprise. The familiar garden herbs and pot herbs used medicinally and for culinary purposes can certainly be grown profitably. These would include the mints, pennyroyal, sage, lettuce, yerba santa, thyme, caraway, fennel, coriander, camomille, and many others. There are numerous introduced medicinal trees, shrubs, and herbs, in cultivation and escaped from cultivation, which might, no doubt, be grown profitably. It would seem desirable, however to begin with a few of the more important, less common, vegetable drugs, as for example, aconite, digitalis, rhubarb, belladonna, scopola, hyoscyamus, and others. There is, however, no plausible reason why such common but nevertheless

very desirable drugs, as taraxacum, chicory, mallow, burdock, hoarhound, mustard, milk-weed, sambucus, stramonium, mullen, absinthium, rosemary, and many others should not be very profitably cultivated on a large scale. Insect flowers (Pyrethrum), lavendula, hops, and others are being grown very successfully in the State.

While the matter is in the experimental stage it would be desirable to begin with perhaps five or six different species of medicinal plants. In the course of a year and after careful consideration it will be found which plants are best suited to the particular soil, climatic condition, and temperature, and finally the individual grower will in all probability limit himself to one or two or perhaps three species. It will be necessary to develop the most suitable methods of cultivation, fertilization of soil, rotation of crops, collecting, garbling, drying, and marketing of drugs. Each species of medicinal plant will require its special attention, just as with the different field, orchard, and garden plants. For detailed and specific instructions the available literature should be consulted, and for the rest, experience must be the guide.

At this time the most that can be done is to offer suggestions, hoping that they may serve as a stimulus to a fuller investigation of the matter, leading to carefully planned attempts at the cultivation of medicinal plants within the State of California and in other States.

For Rent

A corner, very desirable for a drug store, on Kearny street, between Pine and California. Permanent building. Reasonable rent to a desirable tenant. Inquire this office.

SHORT VISITS TO THE TOMBS OF OUR FOREFATHERS.



Galenus Claudius.

Galen was born about 130 A. D. at Pergamus in Mysia. As to his very early life we have no authentic information. Whether he was given modified milk, malted milk or nursed in the good old-fashioned way, whether he ran away from school, chewed gum or smoked cigarettes before the age of ten years, will remain a debatable question.

The father had destined the boy to be a philosopher, but in consequence of a dream the parent selected the profession of medicine. The boy began his professional course at the age of seventeen years. He studied at Pergamus, Smyrna, Corinth and Alexandria. He returned to his native city at the age of twenty-nine, immediately identifying himself with a school of medicine.

The fame which the young physician attained soon attracted attention far and wide. He was invited to Rome where at different times he was attending physician to the emperor. Here he enjoyed an enviable reputation as a physician, receiving such titles as "wonder-speaker" and "wonder-worker." He excited

the envy and jealousy of his fellow-practitioners to no small degree by giving prominence to new ideas.

The middle and latter part of his life was spent mostly in Rome. During this time he was actively engaged in practicing the profession of medicine and pharmacy. Whether he was a registered pharmacist or simply infringing upon the profession, we are not informed. It will be remembered, however, that at that age there was no distinct line between medicine and pharmacy.

While at Rome he wrote much upon medicine and allied subjects. About five hundred treatises of various kinds have been credited to him. But only a small number of these are now recognized to be genuine. He also wrote upon pharmacy and materia medica. His writings for the most part are in Greek, a few being in the Latin and Arabic translations.

His interest in sciences was distributed over several fields, physiology, anatomy, materia medica, botany, pharmacy and clinical medicine. He demonstrated unusually progressive tendencies in advocating the dissection of lower animals to further anatomical knowledge. His ideas upon pathology were crude but to be expected. Yet despite his interest in things of science he is said to have been superstitious, even to the extent of placing more faith in charms than medicine in the treatment of disease.

In materia medica he ranks second to Dioscorides. He is accused of using numerous ingredients of an inert character in his prescriptions. To the list of medical plants mentioned by Dioscorides he added nearly half as many more. He is also credited as being the first to get aroma from plants by distillation.

Galen was a man of rare ability, a

keen observer and a versatile writer. His philosophical knowledge possibly at times blurred his vision for scientific subjects, yet so influential did his writings and personality become that for nearly fourteen hundred years his authority in affairs medical was supreme. He was a great student of logic and many of his medical writings show the influence of this subject and his stoic philosophy.

Before and during the time of Galen, medicine and pharmacy were of course in a crude state. Medicine was divided into a number of sects, the Dogmatic, Emperici, Eclectici and Episyntetici, even as it is today. So great was the influence of his personality and teachings that these sects seem to have lost their identity, and for centuries after the Greek and Roman medical writers were mere compilers of his medical essays. He, therefore, possessed the rare ability to unite and harmonize the different sects in the profession. Just how he did this, history leaves us to guess. It is probable that it was largely through his remarkably able writings.

Galen like other human beings was not infallible. He made his mistakes. Yet considering the age in which he lived he may truly be said to have been a remarkable man.

Concerning the last years of his life we have very little information of an authentic nature. In fact, it is not known exactly when or where he died.

Historian Linidas claims he died in his seventieth year. The Arabian biographer, Abjul-farja claims he died in his eightieth year in Sicily.

The accompanying cut copied from "Ancient Pharmacy and Medicine," by permission of Englehard & Co.

A CHEMICAL AND BACTERIOLOGICAL EXAMINATION OF THE WATER SUPPLY OF SAN FRANCISCO*

F. W. Nish, Phar.B.

CONTAMINATIONS.

Inorganic. As the water in the form of rain-drops falls through the atmosphere, it becomes slightly contaminated with foreign gases, particles of dust, bacteria of various kinds, and other impurities floating in the air. This is true, however, only of the water which falls during the first showers, but it is particularly true of the water which falls in and about large cities and thickly inhabited locations having many factories. In such places these first rain-drops may contain compounds of nitrogen ranging from ammonia to nitric acid. Hence we would look for water in its purest state in uninhabited regions after the first showers.

Much of the water which falls on the mountain side as well as in the plain is carried off immediately through natural channels, and ultimately reaches the ocean or some inland sea or lake. A good portion of it, however, sinks into the earth and gradually finds its way through the underlying strata to an impenetrable layer of rock, known as the bedrock. Here it either forms underground reservoirs or follows the course of the bedrock until the bedrock crops out on the surface, where the water oozes out in the form of a spring.

In the higher altitudes the moisture is usually precipitated in the form of snow. This is the most favorable condition for its slow absorption and retention in these natural storage reser-

voirs. Being an excellent solvent, as it gradually percolates through the subsoil, the water gathers and holds in solution the salts of the various metals, the nature and amount of which will depend more upon their solubility than upon their abundance in the soil.

These metallic salts usually exist in the water in the form of sulphates, chlorides or carbonates. The former two give "permanent hardness" and the latter may give "temporary hardness" to the water. In some localities the water may be more or less impregnated with iron, sulphur, magnesium, etc., but these are rare instances.

Organic Impurities. As it percolates through the soil, the water might come in contact with organic material. This is especially true if there is a cesspool or drain, either natural or artificial, near by. Here also it becomes contaminated with a vast number of bacteria of different kinds. Water which runs in open ditches or streams comes in contact with a large quantity of decaying organic materials, portions of which are held in solution or suspension. Here also is a principal source of contamination from bacteria. The amount of organic impurities, therefore, will depend largely upon the distance the water has been allowed to run in open streams and ditches, and also upon the character of the country through which it flows. Lakes and ponds situated in low places are usually surrounded with a thick growth of vegetation, and are always

* The work herein recorded was done in the chemical and bacteriological laboratories of the California College of Pharmacy, San Francisco.

sure to contain water which is rich in organic impurities. It has often been stated that water will purify itself if allowed to run a long distance. This statement, however, has not been borne out in experiments, especially with water which flows through the heavy soil of an alluvial plain. Hence we may safely say that the water of rivers, of large rivers in particular, could hardly be looked upon as potable. The most wholesome water is that which is derived from deep wells, springs, or from upland surfaces.

Source of San Francisco Water. The water supply to San Francisco is derived from a number of sources, the principal of which are San Andreas, Pilarcitos, Crystal Springs, and Merced. These sources are all lakes, situated at a considerable distance from San Francisco, which necessitates the water's being piped a long way. A number of storage reservoirs, situated in different parts of the city, serve as distributing points to the adjacent section. The water, which was examined chemically, was drawn at the Affiliated Colleges, and in all probability was supplied from a storage reservoir situated on Ashbury Heights, a few blocks away. It was impossible to ascertain the particular source of water which supplied that particular storage reservoir, but we might safely say that it is an average sample of the water supplied to the whole city, as will be shown by a comparative table of samples from the above four sources.

The following table shows the grammes per 1,000,000 Cc. of water. T. S., total solids; L. I., loss by ignition; Ch., chlorine; N., as NO_3 , nitrogen as nitrates; N., as NO_2 , nitrogen as nitrites; F. Am., free ammonia; Alb. Am. albuminoid ammonia:

T. S.	L. I.	Ch.	N. as NO_3	N. as NO_2	F. Am.	Alb. Am.
260.	50.	24.4	.5	None	.078	.16

Total Solids. In order to obtain the total solids, any definite volume of the sample is taken and evaporated to dryness over a water bath, placed in a desiccator until its weight is constant, and then weighed. From this weight the total solids found in 100,000 or 1,000,000 parts can be ascertained.

Loss by Ignition. The total solids represent the organic as well as the inorganic solids, and in order to determine the organic solids the total residue is incinerated and the remaining ash is then weighed. The difference between the weight of the total solids and the weight of the ash, after incineration, is the loss by ignition and represents the weight of the organic solids.

Chlorine. The amount of chlorine in water is very small; so, in order to get a more concentrated liquid to work upon, 250 Cc. of the sample are evaporated until it measures only about 50 Cc. The amount of chlorine in this amount is then estimated by titrating with a standard solution of silver nitrate, potassium chromate being used as an indicator.

Nitrogen as Nitrates. This is estimated by subjecting a sample and a standard solution of potassium nitrate to the same treatment, comparing their colors and then diluting one or the other until they are of the same color. The process is as follows: 100 Cc. of the sample are evaporated to dryness, to the residue, 1 Cc. of acid phenyl sulphate and 1 Cc. of distilled water are added and mixed. Three drops of concentrated sulphuric acid are then added, and the whole thoroughly mixed and heated. It is then diluted to 25 Cc. with distilled water and rendered slightly alkaline with ammonium hydroxide. The water is of a greenish color. Next 5 Cc. of the standard so-

lution (.722 grammes to 1000 Cc.) are treated in the same way as above, and the colors compared.

Nitrogen as Nitrites. One hundred c.c. of the sample are placed in a comparison cylinder, 1 Cc. each of sulphuric acid, dilute hydrochloric acid, and naphthyl ammonium chloride is added in the order named. Into another clean comparison cylinder 1 Cc. of a standard solution of silver nitrite is placed and the solution made up to 100 Cc. with pure distilled water that is free from nitrites. To this solution the same reagents are added, and in the same order. A pink color is produced in the presence of nitrites which may require half an hour to develop. At the end of that time the darker solution is diluted with pure distilled water until the colors are the same and the calculations made.

Free Ammonia. Five hundred Cc. of the sample are placed in a large flask and 5 Cc. of a 20% freshly prepared solution of sodium carbonate are added. It is then distilled and each 50 Cc. of the distillate which comes over is tested by adding 2 Cc. of Nessler's solution. This is compared colorimetrically with pure distilled water, which is free from ammonia and to which 2 Cc. of Nessler's solution have been added. Titrate this with a standard solution of ammonium chloride until the desired color is obtained. The total number of Cc. of ammonium chloride solution required, multiplied by .00001, will give the free ammonia in 500 Cc. From this the calculation can be made for the free ammonia in any amount.

Albuminoid Ammonia. To the water remaining in the flask from the above process enough alkaline potassium permanganate solution is added to render it decidedly alkaline. It is then distilled as before and each 50 Cc. of dis-

tillate tested colorimetrically, as in the process for estimating the free ammonia and the calculations made in the same manner.

The alkaline potassium permanganate is added to decompose the albuminoid ammonia and liberate the ammonia, which is then distilled over and estimated as if it had existed as free ammonia.

Oxygen Consuming. Process: 250 Cc. of the water under consideration are put into a flask and 250 Cc. of pure distilled water are put into another flask. Into each flask is put 10 Cc. of the standard potassium permanganate solution and 10 Cc. of the dilute sulphuric acid. The flasks are covered and allowed to stand for three hours. The potassium iodide solution is then added to each until the color of the solutions changes from pink to yellow. Each solution is then titrated with the thiosulphate solution until the color fades to a pale straw tint. To each solution 1 Cc. of fresh starch solution is now added, and a deep blue color appears. Titration with the thiosulphate solution is continued until this color entirely disappears. The following solutions were required:

Potassium permanganate, 0.395 grams in 1000 Cc. of water; sodium thiosulphate solution, 1 gram in 1000 Cc. of water. Dilute sulphuric acid, 1 volume of pure sulphuric acid and 3 volumes of water.

Potassium iodide solution, 1 gram potassium iodide in 10 Cc. of water.

Starch solution, 1 gram of starch in 100 Cc. of boiling water.

The following table shows an analysis that was made in December, 1905, and shows comparatively the impurities in the water obtained at the various sources of supply.

Parts in 100,000:

The following are the abbreviations:

T. S., total solids; L. I., loss by ignition; F. R., fixed residue; Ch., chlorine as chlorides; O. C., oxygen consuming; N. Alb. Am., nitrogen as albuminoid ammonia; N. F. Am., nitrogen as free ammonia; N. NO₂, nitrogen as nitrites; N. NO₃, nitrogen as nitrates.

This would indicate that the water of San Francisco carries much more mineral salts than the water of the cities along the Atlantic seaboard; while on the other hand, each and every one of them is supplied with water, which contains a much larger

Source	T. S.	Ch.	Alb. Am.	F. Am.	N. NO ₂	N. NO ₃	O. C.	Hardness
Philadelphia	143.	3.	.147	.008	none	1.51	4.60	44.
New York	118.	3.5	.221	.022	"	1.84	8.10	33.
Brooklyn	60.	5.5	.067	.006	"	2.69	4.13	22.7
Boston	85.	3.15	.496	.108	"	2.75	17.7	21.
Washington	115.	2.7	.221	.49	"	1.84	6.	48.
Cincinnati	162.	8.05	.196	.094	"	1.64	8.6	64.

The following table shows the result of analyses made by A. R. Leeds in 1881:

Parts per 1,000,000, or milligrams per litre.

proportion of nitrates. Their high oxygen-consuming value as compared with that of the water of San Francisco would indicate that they contain a far greater amount of organic

Source	T. S.	L. I.	F. R.	Ch.	O. C.	N. Alb. Am.	N. F. Am.	N. NO ₂ N.	NO ₃
San Andreas	23.4	8.	15.4	2.48	.225	.0263	.002	None	Trace
Pilarcitos	13.6	5.6	8.	2.13	.235	.028	.0016	"	"
Crystal Sp.	28.4	7.2	21.2	2.48	.330	.052	.0075	"	"
Merced	34.8	7.2	27.2	6.74	.385	.045	.002	"	.01

According to the results obtained, the following table will show the parts in 1,000,000, or milligrams per litre in the water of San Francisco:

impurities than does the water of San Francisco.

Bacteria Found in the Water.

It is quite a simple matter to de-

Source	T. S.	Ch.	Alb. Am.	F. Am.	N. NO ₂	N. NO ₃	O. C.
San Francisco	260.	24.2	.16	.078	None	.5	2.94

By comparing the above reports it will be seen that the water of San Francisco contains from two to four times the amount of solids and from three to eight times the amount of chlorine that the water of these Eastern cities contains. It will also be seen that the ammonia, both free and combined as albuminoid, is not greatly different from that of some of them, but that the nitrogen as nitrates is only from one-fifth to one-third as much as that of some of the Eastern cities.

termine the number of colonies of bacteria in any given quantity of a sample of water, but it will be impossible to make a comparison of the water of San Francisco with that of other cities from a bacteriological standpoint, because I did not succeed in obtaining the necessary data.

Through the courtesy of Dr. F. G. Canney, I was permitted to visit the bacteriological laboratories of the Health Department of San Francisco, where his assistant, Mr. E. P. Kendall,

kindly showed me through the laboratories and briefly outlined their process for preparing media, inoculating the same, incubating, and estimating the results. Their methods in general are practically the same as those employed in the college laboratories, differing only here and there in the minor details. They have made no tests of the water in the last few months, but the last tests that were made show results which are approximately the same as those given below.

Medium Employed. The medium employed was the regular gelatin beef medium.

Collection of Sample. The water was collected in bottles that had been

previously corked and thoroughly sterilized. In all cases it was taken from faucets that were in constant use and the water was allowed to run a few minutes before the bottle was filled.

The inoculations were made as soon as possible after the water was collected, because the bacteria multiply very rapidly in the water if it is allowed to stand, as will be shown in the following tables.

There is a general impression that distilled water is free from bacteria. This might be true of recently distilled water, collected under the most favorable conditions, but it is far from true of distilled water which has stood for any length of time in the ordinary container, as will be shown in this table.

Sample of Distilled Water Obtained in the Open Market.

Sample	Medium used	Date Sown	Date of Growth	Colonies per Cc.
1	Alkaline	12, 17, '05	12, 19, '05	9600.
2	"	12, 17, '05	12, 19, '05	5600.
3	"	12, 17, '05	12, 19, '05	1000.

The following table shows the number of colonies of bacteria per Cc. in six different samples of water obtained from different sections of San Francisco, and sown the same day that they were collected, the medium used being slightly alkaline.

Sample	Collected	Sown	Growth	No. per Cc.	Where obtained
1	2, 11, '06	2, 11	2, 13	70.	North Beach, Pierce and Filbert.
2	2, 11, '06	2, 11	2, 13	120.	Ferry Building
3	2, 11, '06	2, 11	2, 13	400.	Lotta's Fountain, Market and Kearny.
4	2, 11, '06	2, 11	2, 13	100.	Bernal Heights, 29th and Valencia.
5	2, 11, '06	2, 11	2, 13	60.	City Hall.
6	2, 11, '06	2, 11	2, 13	80.	Affiliated Colleges.

The following table shows the number of colonies in the same six samples of water after having stood for five days before the inoculations were made:

Sample	Collected	Sown	Growth	No. per Cc.	Where obtained
1	2, 11, '06	2, 16	2, 18	10,240	North Beach.
2	2, 11, '06	2, 16	2, 18	11,200	Ferry Building.
3	2, 11, '06	2, 16	2, 18	89,600	Lotta's Fountain.
4	2, 11, '06	2, 16	2, 18	6,400	Bernal Heights.
5	2, 11, '06	2, 16	2, 18	38,000	City Hall.
6	2, 11, '06	2, 16	2, 18	9,600	Affiliated Colleges.

It was found that the bacteria most prevalent in the water was oval in outline, liquefied the gelatin medium, was strictly aerobic and developed in from 36 to 48 hours at an ordinary temperature. When placed in an incubator at 25 degrees C. they developed in from 12 to 24 hours.

In none of the samples tested were there found any bacteria except those which are common to water in general. These were also found in distilled water which had been allowed to stand under ordinary conditions, so they could hardly be looked upon as detrimental bacteria.

In conclusion it might be said that, so far as its chemical contaminations and inert organic impurities are concerned, the water supplied to San Francisco compares most favorably with that which is supplied to any of the large cities of the East.

As to its bacterial contaminations, we may safely use it for all domestic purposes without any fear of evil consequences so long as it remains as wholesome as we find it today.

U. S. P. Chemical Revisions Will Shortly be Announced

Dr. Virgil Coblentz, of this city, and Dr. Samuel P. Sadtler, of Philadelphia, who, as members of the Committee on Revision of the U. S. Pharmacopœia, are considering the recommendations of the manufacturing chemical and drug houses relative to modifications of the present standards and tests on organic and inorganic chemistry items, held a meeting with other members of the Revision Committee in Philadelphia, on March 14 and 15. At the conclusion of this meeting they announced that their work of revising the chemical list was almost completed. It is, therefore, expected that an official report on

their deliberations and the amendments which they approve, in response to the suggestions of manufacturers of chemicals last December, will probably be made before the end of this week.—American Druggist.

Northwestern University Alumni Organize

Active efforts are being made to locate all the alumni and former students of Northwestern University. Letters have been sent to all alumni and ex-students whose addresses are known. Those who as yet have not been reached, should correspond with the secretary, Dr. Henry B. Carey, Affiliated Colleges, San Francisco. The new organization will be initiated with a banquet, announcements of which have been sent to all Northwestern University people in California. It will be a grand reunion of all the sons and daughters of Northwestern, and no loyal alumnus can afford to miss it.

The banquet will be held in San Francisco, May 15, 8 p. m., at Tait's, corner of Van Ness and Eddy street.

Despondent—Drink water and get typhoid. Drink milk and get tuberculosis. Drink whiskey and get the jim-jams. Eat soup and get Bright's disease. Eat meat and encourage apoplexy. Eat oysters and acquire toxæmia. Eat vegetables and weaken the system. Eat dessert and encourage paresis. Smoke cigarettes and die early. Smoke cigars and get catarrh. Drink coffee and obtain nervous prostration. Drink wine and get the gout. In order to be entirely healthy one must eat nothing, drink nothing, smoke nothing, and even before breathing one should see that the air has been properly sterilized.—Southern World.

Prescriptions.

There are many mistakes made by physicians in the use of the elixirs. These preparations, usually pleasant vehicles, contain approximately twenty-five (25%) per cent of alcohol. It often happens that prescription for a child calls for an elixir as a vehicle, the dose being a dram, repeated as often as every half to an hour. Few fully realize how much alcohol a child would be receiving at this rate.

The prescribing of chloral hydrate with any alcoholic vehicle is a mistake. A chloral alcoholate soon separates from the mixture, coming to the top of the liquid. Accidents from this cause have happened. The pharmacist should be careful to place a shake label upon the bottle when such prescriptions are filled.

A prominent pharmacist recently said that less than ten per cent of the prescriptions upon his file were correct. This does not speak well for the physicians' knowledge of *Materia Medica*. But what is in store for us a generation later? The State Board of Medical Examiners, through a recent law, will not examine candidates in this subject. It is to be hoped that the schools will not take advantage of this to give weaker courses in this important subject.

The Council of Pharmacy and Chemistry of the American Medical Association has been investigating the liquid preparations containing digestive ferments. The literature upon these preparations, even that of the standard supply houses, has been recklessly extravagant in claims of merit. The incompatibility of these digestive enzymes has apparently not been taken into account. Pepsin normally is secreted in the stomach and works only in the presence of an acid medium. Pancreatin, upon the other hand, de-

rived from the pancreas, works best in an alkaline medium. Hence liquid preparations containing these substances necessarily cannot preserve constituents so chemically different. Indeed, it is evident to any one that pancreatin, to be effective, should not be exposed to the acid secretions of the stomach at all. So, as a result of this criticism, we shall probably have some new preparations of these important enzymes. It is rather strange that attention has not been directed to this long ago, since the facts have been well known to physiologists for years.

Synthetic Preparation of Adrenalin.

The "Pharmaceutische Zeitung" says that it seems that the synthetic preparation of the vaso-constrictive principle of the suprarenal gland has at last been successful. In 1905 Dakin prepared from methylamino-acetyl-catechol, first made by Stolz and having the formula $C_6H_3(OH)_2CO.CH_2.NHCH_3$, a base very similar to adrenalin physiologically, but chemically apparently not the same. Again Halle in 1906 succeeded in preparing a substance very close to adrenalin. Since then Stolz reached his goal. He undertook to investigate the active constituent of the suprarenal capsule, the chemical formula for which had been given as $C_9H_{22}NO_3$, as to its constitution and for the ultimate purpose of getting at a synthesis of suprarenin. In this he seems to have succeeded. The constitution of his substance has by exhaustive analyses been confined to one of two formulas: $(HO)_2C_6H_3.CH(OH).CH_2NH.CH_3$; or $(HO)_2.C_6H_3.CH(NHCH_3).CH_2OH$.

Wanted—Drug clerk; must be registered in California. State age, experience, married or single. Good steady position for right clerk. Address J. G. Munson, San Jose, California.

Communications

Laws Affecting Pharmacists Passed by the Last Legislature

San Francisco, April, 4, '07.

The Pacific Pharmacist, San Francisco, California:

Gentlemen:—During the recent session of the Legislature of this State there were numerous bills introduced of interest to pharmacists. There was an entirely new Poison Law introduced, one section of which is aimed particularly at the sale of narcotic drugs and reads as follows:

"The sale of morphine, codeine, heroin, opium and cocaine, their salts, compounds or preparations is hereby prohibited, unless upon the prescription of a physician, dentist or veterinary surgeon, licensed to practice in this State, except preparations of opium containing less than two grains to the fluid ounce."

The balance of this Poison Bill is very similar to the Poison Laws now in effect in other states.

A bill affecting the itinerant vendors of drugs, nostrums, etc., was introduced, which charges a fee of \$100 for a license to conduct the business of itinerant vendors of drugs, medicines and nostrums in this State for a period of six months next ensuing the date of such license, said license to be issued by the Board of Pharmacy and is transferable only at their discretion. The fee for such license going into the Treasury of the Board for its maintenance.

What is known as the Ten Hour Law which restricts the working hours of drug clerks to a period of not to exceed sixty hours in six consecutive days, which has been in effect for two years was amended by placing such

law under the jurisdiction of the State Labor Commissioner, and making it his specific duty to enforce its provisions.

Several Pure Food and Drugs bills were introduced in both the Senate and Assembly. The bills that finally became law were what were known as Senate Bills Nos. 29 and 30, introduced by Senator McCartney. The provisions of these bills conform very closely to the National Pure Food and Drugs Act.

The present Pharmacy Law was amended in several respects, the most important changes being as follows: In future the Board of Pharmacy will hold meetings every four months instead as at present every three months. The fees for examination are as follows: Every applicant whether for examination as assistant, or licentiate, or for registration on experience without examination, must accompany his application with a fee of \$10, which is retained by the Board whether registration is granted or not. Should an assistant be successful in his examination, certificate is granted to him without further fee. Should a licentiate be successful he pays an additional fee of \$5 for his certificate. Should registration be granted to an applicant without examination he pays an additional fee of \$15 for investigation, registration and certificate. In other words, it will cost a successful assistant \$10, a successful licentiate \$15, and a successful credential applicant \$25.

A general dealer in rural districts whose place of business is two miles or more from a pharmacy conducted by a regularly registered pharmacist will be granted a General Dealers Per-

mit upon payment of the fee of \$12 in advance, such permit giving him the privilege of selling ordinary drugs and household remedies when put up in packages by a registered pharmacist and bearing his label, proprietary remedies that are put up under the supervision of a registered pharmacist in the State of California, which proprietaries have been registered with the Secretary of the State of California. Patent medicines which are registered, trade-marked or copy-righted in the United States Patent Office are exempt.

Section 14 of the present act has been changed so that a duly authorized deputy of the Board may examine applicants and issue temporary certificates as well as the members of the Board themselves.

Under the new law a person who has served an apprenticeship of three years must take the examination as assistant pharmacist, and no one who has been employed more than three years in the study of pharmacy can be registered as an apprentice.

The new law also provides for the re-issue of certificates which may have been lost or destroyed, requiring a fee of \$3 for such re-issue.

While we do not think the Pharmacy Law of California is perfection, we do believe it is now about as good a law as can be found operative in any other state. The various bills above referred to have all been signed by the Governor and will become effective within sixty days after his approval. The Board has been very active in enforcing the provisions of the Pharmacy Law, having made five arrests within the last ten days and have good evidence in twelve other cases of violation, and the end is not yet. Many of the prosecutions are necessitated by

the carelessness of newcomers to the State who do not comply with the provisions of the law making it necessary for every person to have a certificate to practice pharmacy and enabling them to do so by procuring a temporary certificate. Very truly yours,

California State Board of Pharmacy,
Chas. B. Whilden, Secretary.

San Francisco, April 3, 1907.

The Pacific Pharmacist, San Francisco, California:

Gentlemen:—We are having a great many inquiries from eastern states in reference to the conditions under which registered pharmacists of other states may become registered in California. Under the Pharmacy Law of California no person can practice pharmacy unless he be a registered pharmacist or a registered assistant pharmacist. To obtain a certificate of registration as an assistant pharmacist the applicant must have had three years' experience and pass an examination before this Board, and a licentiate must have had five years' experience and pass an examination before this Board. This Board does not recognize the certificates of other State Boards of Pharmacy, and no person can register in this State without examination unless such person holds a diploma from a reputable College of Pharmacy and has had 18 years' actual experience in the practice of pharmacy, or has had 20 years like experience without such diploma. In which case, however, the applicant must be able to prove up such experience by affidavits from responsible parties covering the entire length of time he claims to have been in the business.

Should an applicant arrive in California during the interim between ses-

sions of the Board he must, before going to work in a drug store, apply to some member of the Board for a temporary certificate granting him the privilege of practicing pharmacy until the next meeting of the Board. Unless he procures such certificate he is liable to, and if found out, will be prosecuted the same as any unregistered person who attempts to practice pharmacy in this State. It has been our unpleasant duty to make such prosecutions in several such cases, and we will continue to do so when necessity demands it, but we will prefer to have newcomers to the State act in good faith by making application for temporary certificate immediately upon their arrival in the State and thus avoid any complications. Very truly yours,

California State Board of Pharmacy,
Chas. B. Whilden, Secretary.

California Pharmaceutical Society
San Francisco, April 19, 1907.

OFFICERS
President . W. M. Searby
Vice-Pres. . J. H. Flint
Treasurer, C. J. Abraham
Secretary . F. N. Nish

TRUSTEES
C. J. Abraham
K. B. Bowerman
F. A. Grazer, M. D.
S. A. McDonnell
Val Schmidt
W. M. Searby
I. Tobriner

Dear Sir:—For several years it has been felt that there was need of an organization that should bring together those who are engaged in the drug business, for the purpose primarily of mutual improvement scientifically, for better acquaintance and more friendly intercourse socially, and incidentally, as occasion may arise, to confer together on matters of common interest, to watch unfriendly legislation, and generally to co-operate in whatever may seem to promise a betterment of the condition of the pharmacists of California.

A number of years ago there was such an organization, the California Pharmaceutical Society, which did excellent work, but it has long been in-

active from the lack of interest on the part of those who should have been most active. The California Pharmaceutical Society is incorporated under the laws of this State, and many of its members are still in business. At a meeting of the Alumni Association of the California College of Pharmacy, held recently, a committee was appointed to consider the feasibility of reviving this society, and as a result of that action, meetings of the members and directors of the society have been held and officers have been elected to serve until the next annual meeting in November.

We now ask you to join in this movement if it commends itself to your favorable consideration. Please send your application for membership to the secretary at your earliest convenience, accompanied by a check or money order for \$1 for dues to the end of the current year, November 14, 1907.

We hope before the next annual meeting is held to have a large proportion of the pharmacists of this State united in an organized body for the purposes above set forth. Single-handed we can do nothing, united we can accomplish much. Organization is the order of the day, and pharmacists have the unenviable distinction of being one of the largest bodies of intelligent men having much in common, but having no organization to promote their highest interests. Let us get together. It will do us good to know each other better, to compare notes, and occasionally add our unit to the sum total of the knowledge of the art of pharmacy.

If the response to this note is prompt and sympathetic, it is probable that a meeting will be held during the approaching summer. Let us hear from you soon. Yours truly,

F. W. Nish, Secretary,

State Board Registrations

LIST OF SUCCESSFUL APPLICANTS AT THE RECENT EXAMINATION

LICENTIATES

R. Balaban
Lyman G. Chapel
Gordon M. Eddington
Hugh C. Gardner
Wm. J. Hanahan
Chas. W. Hesser
Clyde E. Moomau
Chas. A. Otto
S. Horace Sayre
Frank N. Tiffany
John A. Young
James E. Dougherty
Claire E. Ferris
Frank D. Jackson
Charles LeR. Parsons
Edgar C. Shaler
Willard S. Stuck
Daniel D. Wray

Francis J. Belz
Anthony C. Coit
Calvin D. Everett
Waldemar Guerich
Henry H. Hart
Francis B. Kane
W. C. Morgan
Nathan A. Porter
W. W. Shartel
Roy M. Stocking
Joseph W. Tuttle
Edward E. Carter
A. F. Emeis
Norval T. Holmberg
Walter A. Kunath
Charles Samson
Clarence E. Stephens
Lionel M. Waugh

Morris Tobias
J. C. Auen
H. C. Dusendschon
H. F. Fuller
Albert Frank Killian
E. M. Philips
Arthur E. Skinner
Harry E. Valentine
Charles M. Yerkes
Phipps I. Brooks
Cordie S. Coordes
Edward H. Gallagher
Oscar H. Haarer
Edward S. Heil
Leonard J. Klipp
N. Johan Nielsen
James Richards

ASSISTANTS

Thomas C. Kenneally
J. C. Owen
A. P. Komsthoeft, Jr.
J. L. Moore
Kisaburo Tabata
Francis Girt

Louis Wagner
Geo. B. Davies
Marshall Mackenzie
Ralph A. Tomasco
John L. Smith
Merle L. Lloyd

Merle C. Smith
C. L. Carstensen
Lawrence J. Mosely
Robert M. Stevenson
James E. Evans
J. F. Rodgers

THE FOLLOWING WERE REGISTERED ON CREDENTIALS

Thomas Bickle
Hedley V. DeWolf
Dwight D. Johnson
Edward F. Varney
Gustavus A. Swaby
Wm. M. Benz
N. H. Jackson
Frank H. Shurtleff
Frank E. Clark

Lewis Fatton
Chas. H. Mansheffer
Joseph A. Besby
G. O. Bailey
Harry W. Andrews
D. H. Delmar
Charles Grellmann
William B. Pitts

Frank J. Sherwood
Frank Chambers
Alphonso C. Ireland
G. V. Hale
Geo. I. Vincent
Perley W. Howard
Chas. F. Maize
Arthur Veitch
Helen Serene Newby

Among the Colleges

STUDENTS VISIT SOME OF WEST BERKELEY'S FACTORIES

About fifty students of the California College of Pharmacy enjoyed a rare treat on the 19th ult., when they had the privilege of visiting four of the manufacturing establishments that now line the shores of the bay and dot the plain at West Berkeley.

Eldorado Oil Works

Through the courtesy of Manager F. W. Searby they were first shown over the Eldorado Oil Works. Here they found an alumnus and former instructor in chemistry in their own college, in the person of Professor H. M. McQueen, chemist to the works, who accompanied them through the various buildings. Beginning with the raw material, copra (dried cocoanut) as it comes from the tropical Pacific, they inspected the mills in which this tough, fatty substance is ground to the required degree of fineness, then pressed to remove the oil, and the residue made into cake for cattle feed. Following the oil, they saw it clarified, decolorized and deodorized until, snow-white and "sweet as a nut," it is fit for any use, from massage to soap-making, or from cooking to eating at table. A glance at the laboratory in which the experimental work is done, and at the mode of shipment to eastern and western cities, concluded a very pleasant hour's diversion.

The Carbon Di-Oxide Company

They then visited the Carbon Di-Oxide Company's factory, where the genial manager, Mr. Bither, showed them over the premises, beginning with the limestone and coke, and ending by placing in their hands small

lumps of solid CO_2 . The economical method of obtaining large amounts of CO_2 , the ingenious way of washing it to free it from nitrogen or other gases, the machinery by which it is compressed into liquid form, the method of carrying off the heat given out on condensation—these things were very interesting to a lot of young men who are accustomed to regard CO_2 as a waste product in the laboratory, and of value only in the soda fountain. But when Mr. Bither still further reduced the temperature of the liquid CO_2 by the heat-absorbing power of its own evaporation, until a portion in a twenty-gallon tank was reduced to a solid, small portions of which, resembling lumps of snow, he placed in the hands of a number of the students, their curiosity was greatly excited. It was a new experience to them.

Berkeley Chemical Works

Their next call was at the Berkeley Chemical Works, where the manager, Mr. Page, gave them an outline of their ordinary work, and showed them over the premises. This firm makes large amounts of sodium sulphate, aluminum sulphate, alum, and other salts. The sodium sulphate is made by converting the acid sodium sulphate from the nitric acid works into the normal salt by treating it with sodium chloride and heat. The HCl evolved is caught by bringing it into contact with small amounts of water in tall towers and the product used for other purposes. The aluminum sulphate and alum are made from clay, and sold in large quantities to tanners and others.

California Ink Company

Their last visit was to the California Ink Company's factory No. 3. Here

they were shown the processes by which the dry, insoluble coloring matters were converted into ink for printing and lithographing, and also how the water-soluble colors were brought into such a condition that they could be converted into insoluble inks by incorporating them with the ink base after they had been converted from soluble to insoluble colors. The manager, L. H. Lewars, gave a very lucid and interesting account of the way in which these operations were effected, and his efforts to make all these things clear to the tyros, whose experimentation in color-making has been chiefly confined to coloring elixirs and tooth powders and to making the "mysterious liquids" that illuminate the windows of drug stores, were warmly appreciated.

On their return to college the next day the students assembled in the pharmaceutical laboratory and passed very hearty votes of thanks to all these parties. They realized that it is a great favor for these gentlemen to give them permission to make such a visit, and a still further favor for these busy managers to devote even an hour of their time to such a purpose.

The Cutter Laboratory

On April 16th about thirty students of the California College of Pharmacy inspected the Cutter Bacteriological Laboratory, at Berkeley, and had a rare treat in witnessing the different operations which are practiced in making cultures, serums, toxins, and anti-toxins, and in getting them ready for the market.

The premises are in Berkeley, on the eastern shore of San Francisco Bay, just opposite the Golden Gate, through which, and across the cold waters of the bay, a steady, germ-free breeze off the broad Pacific flows. Never hot in summer, or cold in winter, laboratory

processes and experiments on animals may be carried on uninterruptedly the year round, and in this respect this laboratory is probably the best situated of any in the world. First they were shown some hundreds of guinea-pigs, which are used for experimental (test) purposes. Some of these were "pigs of high degree," while most of them belonged to the hoi poloi of pigdom. They were nearly all busy doing their daily stunt, which consists in eating their own weight of cabbage, lettuce, or other vegetable food. As these innocent looking creatures produce young very early in life, four or five at a birth, and many births in a year, it is small wonder that Mike Flannery was in despair when he had to provide garden truck for his rapidly increasing family of "pigs." After being enlightened as to the use made of these animals in testing anti-toxin, the class visited some of the culture and experiment laboratories, and thence were taken to the vaccine farm, to wit, a young heifer already inoculated with small pox virus, and with the vaccine nearly ready for removal. The sterilization of vaccine was fully and lucidly explained by Wm. M. L. Trowbridge, who showed that under proper aseptic conditions and under such methods as are used in the Cutter laboratory, the presence of other disease germs than those of the modified small pox (vaccine) was almost impossible.

They were then shown a horse rendered immune by repeated dosings of diphtheria toxin until his blood was charged with the anti-toxin. The operator inserted a trochar into the horse's neck near the shoulder and filled a dozen large sterilized tubes with the blood that flowed from the opening, and these were set aside so that the serum, charged with diphtheria anti-toxin could be drawn off. The proc-

esses of filling the tubes, etc., were explained, and the details of testing, grading (as to strength, expressed in units) illustrated.

The work of preparing tuberculosis anti-toxin, and the serum against streptococcus, glanders and anthrax was also explained.

The party was then taken to a restaurant at Berkeley, and the inner man (and woman) bountifully refreshed. After short speeches expressing the thanks of the class to the Cutter Company, by Professors Searby and Carey and students Morgan and Stewart, followed by a cordial response and invitation from Wm. C. M. Twining, the vice-president of the company, to "call again," the students gave the Oskee Wow Wow, and returned to their various occupations, much gratified with their morning's adventure.

California College of Pharmacy.

Although the Affiliated College Buildings "went through the shake," all withstood that terrible ordeal in a very creditable way; the damage being confined mostly to bottles, glassware, apparatus, etc., together with minor damages to the plastering here and there. The California College of Pharmacy was ready to do business at the old stand when the opening day rolled around.

There was some apprehension felt at first that there would not be a sufficient number of relief positions for students who desired to do relief work while in college; but conditions have proven to be the reverse, and instead of students looking for positions, the positions have been eagerly looking for the students. From the present indications there is every reason to believe that such conditions will continue for some time to come; so young men who contemplated coming to San Francisco to take a college course in Pharmacy, need have no fear that they

will not be able to find desirable positions with generous remuneration.

The Polytechnic High School which was burned out last April has been holding afternoon sessions in the Pharmacy Building. We were glad that we were able to furnish temporary accommodations in our building.

The dance given on March 21, 1907, at the College Building to the Seniors by the Junior Social Club was a decided social success. The programme was successfully carried through, and was concluded just before 12 o'clock with the customary "Home Sweet Home" waltz.

The Senior Class has completed the course in Bacteriology given by Dr. Albert Schneider.

Prof. Green is bringing out the end reactions in both classes with his characteristic vim and vigor.

Miss Clarissa Roehr, '04, who is taking the Phar.B. course is doing excellent work.

Prof. Searby has just received the diplomas of 1906. Graduates of '06 will do well to send their latest address to Prof. Searby.

C. C. P. Alumni

An enthusiastic meeting of the Alumni Association of the California College of Pharmacy was held at the college building, Monday evening, April 29.

The first part of the evening was devoted to the reading of the following papers: "A Preliminary Report on the Seeds of *Simmondsia Californica*," by Clarissa M. Roehr; "*Cannabis Indica*: Its Growth and Cultivation in California," by Elmer Jacobs; "Hydrogen Peroxide of the Market," by Horace D. Stewart.

After the reading of these papers a business meeting was held. The following officers were elected: President, H. M. Simmons, M. D.; first

vice-president, Mr. Gartner; second vice-president, H. D. Stewart; secretary, Miss C. M. Roehr; treasurer, C. J. Abrahams; registrar, Miss Nelson. The trustees elected were; H. M. Simmons, M. D.; F. W. Nish, C. J. Abrahams, Miss C. M. Roehr, A. S. Musante, Mr. Guedet, I. Tobriner. Counselor for the Alumni Association, Dr. H. M. Simmons.

The society is planning a banquet to the members of the graduating class, to be held on the evening of May 14.

ALUMNI NOTES

California College of Pharmacy

P. W. Byrd, '05, is holding a responsible position with Bowman & Co., Oakland.

R. S. Baker, '05, is on the night shift at Bowman & Co., Oakland.

E. E. Johnson, '06, is taking the pre-medical course at U. C.

Chester F. Darling, of the '06 class, is now one of the firm of Darling & Co., Oakland.

J. A. Abreu, '06, is with the Owl Drug Co., Thirteenth and Broadway, Oakland.

W. D. Osgood, '06, is making a good record at Cooper Medical College.

J. H. Seaton, '06, is with the Owl Drug Co., Tenth and Washington, Oakland.

W. R. Kleinhammer, '05, is with MacLise, Eleventh and San Pablo avenue, Oakland.

J. W. Tuttle, '06, is in the prescription department of the Owl Drug Co., Van Ness and Sutter, San Francisco.

Frank Bowles, '05 (Lucy), is at Cooper Medical College.

J. W. Mulcare, of the '05 class, is with Bowman & Co., Oakland.

W. B. Braselton, '02, is travelling for one of the large eastern firms.

W. C. Williams, '06, is with the Owl Drug Co., Oakland.

J. L. Justice, '06, travelling salesman for Parke, Davis & Co., who recently went to Detroit, has returned.

E. M. Hale, '06, who is with Wakelee & Co., San Francisco, is the latest addition to the list of benedicts.

H. W. Law, '06, is in his father's office. With the vast building projects which the Law Bros. have on hand, Harold is a very busy young man.

A. R. Maas, '06, is now a member of the Faculty of the College of Pharmacy, University of Southern California. We are sure that, from the nature of the work Mr. Maas did while in college, he will make a success in his calling as an instructor.

H. G. Parsons, '06, still enjoys the salubrious climate of Santa Barbara.

Miss Harriet Patterson, '06, of Wheatland, who is visiting friends in the city, attended the Phi Chi dance.

Geo. L. Pease, '06, is at the Owl's Mission street store.

A. D. Skinkle, of the class of '06, and M. A. Skinkle, Sr., have bought the Hardman drug store, Riverside.

H. D. Jackson, '05, has joined the list of benedicts.

J. R. Lindsay, '05, and W. E. Lindsay, '05, have bought the Zimmerman drug store in Woodland, Cal.

A. H. McCoy (Heine) is now at the Swan Pharmacy.

Leonard J. Miller, '05, is in business for himself in Washington.

G. M. Nelson, '05, has opened up a very attractive store on Hayes street, near Laguna, San Francisco.

E. H. Nohrden, '05, is now head clerk at Haman's, corner Devisadero and Page streets, San Francisco.

J. H. Scudder, '05, is studying medicine in Philadelphia. He is making a good record. Stands high in his class.

H. M. Shadle, '05, is proprietor of the Turlock Drug Co., Turlock, Cal.

B. E. Weaver, '04, proprietor of Weaver's Pharmacy, and Miss Florence Hayes, were quietly married on March 9, 1907.

F. A. Blackburn, '98, has a drug store in San Jacinto, Cal.

S. W. Cartwright, '00, expects soon to graduate from U. C. Medical department.

James G. Creighton, '03, is again with Lengfeld's, San Francisco.

J. W. De Merritt, '03, is interested in the Baldwin Drug Co., San Francisco.

Miss Grace Eddy, '04, is at the Fulton Pharmacy, San Francisco.

E. C. Farmer, '04, of Santa Rosa, lost his store in the disaster of April 18, 1906, but has re-established and is doing well.

R. D. Fuller, '02, has a very attractive store in Berkeley, Cal.

J. H. Guedet, '02, who has recently joined the benedicts, is still at Argenti's Pharmacy, San Francisco.

T. T. McGuire, '01, is one of the leading pharmacists of Petaluma, Cal.

E. Michaelis, '02, is still at the Hamilton Square Pharmacy, San Francisco.

W. F. A. Moltzen, '02, is making "a barrel of money" in Fairbanks, Alaska.

A. S. Musante, '03, is at Cooper College.

Leo A. Schroeder, '02, is making a fine record in the medical college of the University of Southern California.

Dr. Jackson Temple, '01, expects to leave this summer for Edinburgh, where he will take a post graduate course in the University of Edinburgh.

O. A. Weiler, '89, is one of the leading pharmacists of Sacramento.

W. H. Dunlap, '01, is still in Amador City, Cal.

Stanley Whitlock, of the '07 class, is now at Le Brell's Pharmacy, in Riverside, Cal.

Miss Ethel Nelson, '04, is with Philips & Philips, Fruitvale.

E. M. Kimberkin, '05, is doing a very prosperous business at Kingsburg, Cal.

Miss Clarissa M. Roehr, '04, is taking the graduate course in the C. C. P. Incidentally she has charge of the Dispensary of the Medical department, U. C.

Miss Laura A. McCord, '01, is head clerk in the Fruitvale Pharmacy.

News from the Class Naughty Seven C. C. P.

The class of '07 held its first meeting of the new semester on January 17, 1907. The election of new officers to serve the remainder of the term was as follows: D. D. Stewart, President; John Guehring, Vice-President; Miss M. E. Cardwell, Secretary; and Miss M. E. Merriam, Treasurer.

A committee of three was selected by the president to arrange for a dance to be given in honor of the Juniors at the College, on Friday evening, February 1. E. E. Selzer, C. F. Barnes, and Miss Cardwell were selected to arrange for the dance.

The dance given the Junior Class by the Seniors, came off Friday, Feb. 1. The evening was stormy but a large crowd was present, the Faculty being well represented also. The Microscopical Laboratory had been cleared and prettily decorated with greens and the University colors. Every one voted the dance a great success, the Juniors seeming especially to enjoy it all.

The dance given the Seniors by the Junior Social Club was a most delightful affair, although the weather was inclement. The little crowd that gathered, however, was very congenial, and the dance went off with great merriment.

According to custom, the Seniors are arranging to have a class picture taken. The class seems to be in favor of having their picture taken in a group, arrayed in cap and gown. H. P. Morgan, G. B. Mount, and Miss Cardwell, have been detailed to arrange for this. The president also selected a committee, consisting of J. Guehring, Miss Merriam, and R. M. Stevenson, to attend to all affairs connected with Commencement.

As the time draws near to graduation, the class of Naughty Seven is contending with two conflicting feelings. On the one hand is the delight with which we look forward to leaving student life and drudgery behind us, and, grasping our sheep-skins firmly in our hands, to step proudly into the ranks of professional men, and advance on forward into the impenetrable future. On the other side is college life, its associations, its joys and sorrows, the true friends we all have made. So we hesitate, anxious to advance into the future, yet dreading to leave all with which we have become so familiar.

Let us hope, that although we are to leave them all so soon (or at least expect so to do) our friends will not utterly forget the class of Naughty Seven.

M. E. Cardwell,

Secretary.

The Flag of the College of Physicians and Surgeons Floats from Its New Building.

When this reaches our readers it will have been a little over a year since our College Building was, like the greater part of San Francisco, destroyed by the most destructive fire known to civilization.

But, like our brothers in this great city, we set to work rebuilding and replacing what the fire had laid in ashes, and it was in the early fall that a tem-

porary structure, with four large rooms, was erected on the site of the College Auditorium. The permanent structure was begun at the same time, and pushed to completion a month or two later. We now have a building better adapted to our needs, as the trustees, by the aid of the architect, have improved upon the plans of the one that previously occupied the site.

The first lectures in the Pharmacy Department, as well as those in the Medical and Dental Departments, were delivered at the City and County Hospital in September, 1906; soon after, however, we moved into our temporary quarters on the old grounds, Fourteenth and Julian avenue, between Mission and Valencia Streets. All of our boys went at their studies with a vim and have lost none of their enthusiasm, and while the classes are small (as all educational institutions in the city suffered a great falling off after the fire), they are earnest, and what they lack in numbers they make up in quality. It has required backbone and determination to face the many vicissitudes attending the great disaster. These boys have the right stuff in them, and they will succeed if success is to come from hard work and many privations in the effort to acquire their education.

Our boys, for this is what we call them, are not all Californians, or San Franciscans, but have come from other States and Territories, having heard of the delightful climate of California and the progressive and aggressive Pacific Coaster, has sought to adopt this as their homes, to be in the swim with advancing civilization "as the Star of Empire westward takes its way."

The Pharmacy Department of the College of Physicians and Surgeons is an established institution, as its graduates all take a high standing before the

State Board of Pharmacy. The following, received from the Educational Department of New York State, speaks for itself:

"State of New York,
Education Department,
Albany.

January 30, 1907.

Dean D. A. Hodghead,
2435 Sacramento St.,
San Francisco, Cal.

Dear Sir:

I beg to inform you that at the recent meeting of the ad interim committee, held in Albany, January 7, 1907, the application for the registration of the Department of Pharmacy of the C. P. & S. was acted upon, and it is registered in full in group one by this department.

Yours respectfully,

(Signed) Howard J. Rogers,
"First Assistant Commissioner of
Education."

A Social Dance

The medicals and pharmaceutical students were guests at a dance given by the dental student body of the College of Physicians and Surgeons of San Francisco, March 1, 1907.

The spacious infirmary was beautifully decorated with garlands of green and tall palms. The floor was prepared to give ease to the light fantastic step and graceful motions in the dizzy waltz.

Each student had his best girl there, and the beautiful costumes, with their varied colorings, were in happy contrast to the decorations of the hall.

Among the members of the different faculties present we noted the following professors: Winslow Anderson, Thos. Morfew, D. A. Hodghead, Chas. Boxton, J. H. Flint, J. S. Knowlton, William A. Bryant, Morris J. Sullivan and C. O. Southard.

These social gatherings at the College are enjoyable evenings and bring in close touch both faculty and students, helping us to forget the strenuous efforts and giving recreation to body and mind.

Boys, let us have these social gatherings often to help smooth and polish our good natures and make us forget our troubles.

Shiftings of Some of the P. & S. Graduates.

What has become of some of the P. and S. boys and girls since leaving their Alma Mater? They have separated and gone in all directions, each choosing his favorite locality, for his or her condition as it may be.

The writer has had occasion to meet several of the boys lately and all seem to be doing well. Some are in business for themselves, while others are employed by enterprising firms in various places.

J. A. Clinton is at the "Eagle Pharmacy."

Otto G. Marsh is attending the Medical Department of the University of Southern California.

E. H. Speiring, a firm believer in President Roosevelt's doctrine, married a short time after leaving college, and is now delighted with two babes. Mr. Speiring is located at Twenty-ninth and Dolores streets.

Miss Despond is located with our old friend, J. H. Kane, who has built up a good business at Pine and Franklin streets. She is at present visiting friends in New York, but is expected to return soon.

J. W. Salter is now a member of the firm of Salter & Son, Twenty-first and Mission streets.

Westley stole away a few days ago and was married to Miss MacFadden. Rev. Wm. R. Reud tied the knot. By

the way, the Reverend is a medical junior in the P. and S., and has a good reputation for tying the matrimonial knot; so, boys and girls, just remember that he is one of the boys and a good fellow, and if you think of joining the benedicts, do not forget a fellow student.

Miss Violet Salter is now at Salter's Pharmacy.

Frank Nutter is with Chas. J. Abrahams, on Fillmore and McAllister streets.

Doctors Dibble and Marsan have both located in Mendocino County, where they have opened stores and are doing well practicing medicine.

Dr. L. H. Young is opening a model pharmacy in South San Francisco, where he hopes to make his mark in his line, as the doctor is always looking for good things.

FRATERNITY NOTES

Phi Chi

Zeta Chapter, Phi Chi Fraternity, is the outgrowth of a movement started some years ago by several enthusiastic students, who seeing the necessity and advantages offered in meeting together and talking over matters of pharmaceutical interest, formed themselves into a club for this purpose, and in the year 1902 secured a charter from the Phi Chi Fraternity Grand Council at Ann Arbor, Michigan.

The object of Phi Chi is the advance of Pharmacy and its allied interests; also to promote a fraternal spirit among its members.

Phi Chi is the only Pharmaceutical Fraternity of any importance in America, and its chapters are found in connection with every Eastern College whose standard admits the granting of a charter.

The new members who were initi-

ated into the mysteries of Phi Chi during '06 and '07, are: L. Anderson, E. V. Bland, A. Komsthoeft, Jr., D. Stanford, W. G. Triebel, P. V. Guedet, J. Arkin, S. J. Belz, J. J. Parsons and John Guehring, Jr.

The Grand Council of Phi Chi was held March 20th to 23d of this year at Baltimore. Zeta was unable to have a representative present on this occasion, but hopes to be able to send a delegate to the next convention.

Our regular mid-term banquet was held December 17th at the Cosmos Restaurant; many of the alumni were present and a very enjoyable evening was spent.

On Tuesday evening, April 2d, Zeta Chapter gave her annual ball at the Paris Tea Garden. Owing to the destruction of the city's electrical plant the hall was left in darkness, but immediately dozens of candles were lighted and the dance went on unhindered.

This event was perhaps the most successful of any so far, which is due entirely to the untiring efforts of W. C. C. Selzer.

Mr. Phipps I. Brooks, Worthy Chief Councilor of Zeta Chapter, has entered business with his cousin, Mr. S. Strange, and is located at 1449 Eddy, near Fillmore. Brother Brooks is an energetic young man, and his success is wished for by all who know him.

As has been the case with many in our city, the last year has been one of trials for Zeta Chapter, but considering the fact that she has pulled through this period it goes without saying that there is a bright future before her. The house fund has been

steadily growing, and while no definite plans have been decided upon in this respect for this year, it is only a matter of a short time when we will be comfortably housed in a home of our own.

The officers for the past year were: P. I. Brooks, W. C. C.; R. M. Stevenson, W. K. R. & S.; F. Lang, W. P.; C. F. Barnes, V. W. C. C.; E. E. Selzer, W. K. F.; F. Hund, W. H.; A. T. Renner, W. M. A.

Elaborate arrangements have been made for the final banquet in honor of the new brothers and installation of officers for the coming year, and if everything turns out as planned, this event will go down as history in the annals of Zeta Chapter and Phi Chi. A grand re-union is expected, and it is hoped that every alumnus will consider it his duty to be on hand on that occasion.

Certificates of membership are now being issued by Zeta Chapter, and those wishing to secure same will receive full information on communication with the W. K. R. & S. These certificates are beautifully printed on real parchment, and every member should obtain one of them.

DRUG NEWS San Jose News.

There has been a move on the part of the drug clerks to induce proprietors to close their stores on Sundays. Most proprietors favor the move.

W. S. Johnson and Walter West are the automobile pharmacists of San Jose. They are frequently seen on our country roads mixing pleasure with business.

N. R. Carson, manager of Hester Pharmacy has just recovered from a dislocated hip.

Sam Callisch is the happiest phar-

macist in San Jose. If you wish to see genial Sam smile, just ask him about that tooth his bouncing baby boy is about to cut.

R. H. Rabb, proprietor of the Victory Pharmacy has returned from the east where he has been on a visit to his mother.

Messrs. Butter and Dorr, formerly with Fischer and Pellorano, are about to open a new pharmacy in the Garden City Bank Building. This store will make 22 drug stores in San Jose.

I. H. Wagener's new pharmacy is up to date. Mr. Wagener is one of the pioneer druggists of California.

After four years of disagreement between the Owl Drug Company and the Drug Clerks' Union all differences have been settled and the seven stores under the management, four in this city and three in Oakland, are working under union conditions. It has been demonstrated in the settlement that the struggle would not have been so long drawn out if each side had used a little more judgment and tact. It is known, however, that the management is willing to give union conditions as to hours and wages, and will hereafter hire union help in preference to any other. The business agent will have access to the members, but he knows his business too well to interfere when customers are to be waited upon. The boycott which has been resting upon the Owl drug stores will be removed at the next meeting of the Labor Council, and the hard-fought battle is now a thing of the past.

Write to J. G. Munson, San Jose for special offer for Ye-ti-va, Headache and Neuralgia Remedy.

DRUG LEGISLATION

By W. B. Cheatham

No class of business or professional men felt more relief when the 37th session of the California Legislature adjourned, than those engaged in the drug business. The papers or periodicals engaged in magnifying the evils, real or imaginary that could be made to appear dangerous to human life, had left nothing unsaid to convince the public that they could only be saved from sudden death by exhorting their representatives to pass stringent pure food and drugs laws; the result of the sensational articles printed was manifested in numerous bills introduced early in the session. The question of pure food and drugs had been so agitated that many members of both houses were not adverse to having their names engraved on the tablets of time as the saviours of the people. Some of them went far afield to get bills to introduce, apparently browsing around in the field planted by Bok, editor of the "Ladies' Home Journal," nibbling here and there, culling the succulent ideas that grew luxuriantly in his flowery beds of advice, bordered by the latest instructions how to crochet real lace, the correct style for a young lady's visiting card, how to make a hundred dollar davenport out of a few dozen soap boxes, just how to tie a bow of blue ribbon fetchingly on the handle of a hand-painted frying-pan before hanging it upon the wall, and where other scientific knowledge of equal importance has its habitat. After absorbing the Bok idea, they seemed to have ignored the druggist, his interests and his rights, and hied themselves to physicians for additional advice, because their finger-prints were found on each and every bill, and usually at the spot that bore the heaviest on the druggists, as business and pro-

fessional men. It should be understood that referring to physicians, that we recognize the fact that many of them are good friends of the druggist, but, those who agitate and propose legislation inimical to the business of the druggist cannot be so considered.

At the session two years ago a bill was introduced, not as a retaliatory measure, but as a simple reminder that meddling with the business of other people was a knife with two edges. A medical journal came out with a great "roast" for those supposed to be responsible for the measure and said an attempt had been made to repeal the medical law protecting physicians. At this session the representatives of the druggists refused encouragement to any and all bills suggested that would disturb his serene highness, the physician, and waited to see what would occur. The expected, however, happened. The usual crop of trouble-making bills soon sprouted and were tenderly cultivated by a hint here and a whisper there that they were just "what the doctor ordered," and should pass. In the meantime, so far as the writer was informed, not a word was printed against the said bills in the compendium of universal information that howled so loud two years ago when the physicians' pet corn (exclusive right to prescribe) seemed to be coming in contact with something likely to cause real pain.

There is no need here to mention all the bills in which druggists were interested, and which failed to pass, but they were sufficient in number to paper a small wall. It is sufficient to briefly mention the two pure food and drug bills that attracted the most attention. One by Senator McCartney of Los Angeles, who received it in the raw state from a physician, and it was actively backed in its crude condition by several of them. The druggists

were only asking that this bill be made to strictly conform to the pure food and drugs law enacted in June, 1906, by the Congress of the United States. To get it so amended was anything but an easy matter. The Senator who introduced the bill told the writer that he remembered the fight we made two years ago against certain drug bills, and he had drawn separate bills; a pure food bill and a pure drug bill, expecting a fight on the drug measures; he had separated his food and drug legislation to prevent the food part of it from being lost, as might be expected in a combined bill. This admission was a compliment to the druggists' ability and readiness to fight. As the Senator expressed it he did not want to lose his food legislation by having the drug question connected with it. He was assured that all we wanted was a drug bill conforming to the National Law, and had he so drawn a combined drug and food bill, making it the same as the National Law we certainly would have supported it. The result of separation was not a success if the intention was to make a true copy of the National Law, as shown in the bill originally proposed. Restrictions and requirements had been added, not contemplated by those who formed the National Act.

We insisted that the bill be amended so that the National and State Law be made the same in all essential particulars, but because of the ill-advised opposition of certain physicians, nearly two months' time and much labor were required to get the fifty odd changes necessary to enact the law as printed in another part of this publication, and which now is as nearly like the National Act, as a separate bill could be drawn and apply the State's facilities for enforcement.

We shall next consider the Camp-

bell Bill, No. 531, introduced and pushed by Dr. Campbell, a member of the Assembly and Chairman of the Public Health and Quarantine Committee. The place to have amended this bill was in the committee named, but the representative of the druggists was never given an opportunity to appear before Campbell's committee, and have a vote taken on the amendments desired to make this bill a duplicate of the National Act. The author did make some amendments, first adding one that would have forced druggists to provide labels other than those required in the National Act, and later amending by striking out the amendment. Then it was amended to become operative at a later date than the time limit as originally proposed. One of the worst features of Campbell's bill was the provision that publicity was ordered before a trial of any kind had been had, and under this provision the path down which the individual with a grudge to satisfy would naturally walk, rapidly widened out and became a broad road offering unobstructed progress toward the gratification of ill feeling at the expense of the unfortunate druggist. The bill was badly beaten, but only after a hard battle in the Senate. In order that druggists may understand "which way the wind was blowing," let me say that it was reported that Dr. Wiley, an employee of the United States Government as an expert (and not as a legislator), advised additions to the proposed legislations at Sacramento, that bid fair to make druggists more trouble than the National Law. It seems that Congressional Committees desired to be reasonable with all interests, and the extremists like Dr. Wiley were unable to get all the restrictions they desired in the National Law; hence it is said they hoped to see the State Legislatures do for them

the things Congress would not do. An attempt was made by telegraph to secure a denial of Dr. Wiley's reported activity in the California Legislature, but it was not forthcoming, and the party who questioned him in Washington regarding it, reported that an evasive reply was given. If true there is another significant report that had just as well be considered. A physician who took an active interest as a member of the Legislature in drug legislation said in my presence, addressing a resident of Sacramento: "There has been more good drug legislation this session than at any other." Turning to me he said, "the druggists should be thankful to me;" to which I replied, "they are, for all you did in their behalf." Then addressing himself again to the resident of Sacramento, he said: "The State Medical Society was behind me; I will tell you all about it some day." To be fair, let it be said, that the thanks of the druggists are due this member for not pressing objections to the many amendments we secured in the bill which became the law, but it seems to be a fact that he thought the bill was all right as handed in by another physician, before we had secured a **single one** of the many amendments we afterward secured. Now then the question is, was the Medical Society behind the **un-amended bill**? It would appear so, as the amendments secured came exclusively from druggists and a few of them came easily, and the Medical Society must have reposed great confidence in the physicians who were members of the Legislature, if it had agreed to stand back of any bill they might advocate or agree to. This suggests another question, and that is, why do physicians as individuals or as a society feel that they must be the authors of bills to annoy druggists when there are so many good ideas about

how to place restrictions on physicians that might be crystallized into law, to the lasting benefit of the public?

In closing this article, I wish to thank each and every individual who wrote a letter, sent a telegram, or spoke a word that assisted us to send the worst bills to sleep for at least two years, or to amend Senate Bill No. 30, which is now a law. The Pharmacy Bill, No. 433, was the old law with a few changes enabling the State Board of Pharmacy to better protect the legitimate druggist. The new Poison Law, it is hoped, will enable the board to stop the sale of poisons, etc., by groceries and general stores. The Itinerant Vender law places a hundred dollar tax on those who desire to peddle medicine. Copies of these laws will be found in this journal.

A new substance called "Secretin," has been discovered by Bayliss & Sterling. It is prepared by the action of dilute acid on the mucous membrane of the duodenum. The action of this new substance is that of a stimulant to secretions of the pancreas. Experiments thus far seem to indicate that it will be of value in the treatment of some cases of diabetes.

Pure Food for San Francisco.

Government chemists are to test interstate and foreign shipments for adulterants. A laboratory is to be established in San Francisco. The Department of Agriculture, which has charge of the enforcement of the pure food law, will soon establish stations all over the United States. Within the next few months stations will be established in Kansas City, Buffalo, Savannah, St. Paul, Galveston and a larger laboratory built at Chicago.

PHARMACY LAW OF CALIFORNIA

As Amended by the Last Legislature,
and Will Be in Effect This Month

An act to regulate the practice of pharmacy in the State of California, and to provide a penalty for the violation thereof; and for the appointment of a board to be known as the California State Board of Pharmacy.

The people of the State of California, represented in Senate and Assembly, do enact as follows:

Section 1. From and after the passage of this act it shall be unlawful for any person to manufacture, compound, sell, or dispense any drug, poison, medicine or chemical, or to dispense or compound any prescription of a medical practitioner, unless such person be a registered pharmacist or a registered assistant pharmacist within the meaning of this act, except as hereinafter provided. Every store, dispensary, pharmacy, laboratory or office for the sale, dispensing or compounding of drugs, medicines or chemicals, or for the dispensing of prescriptions of medical practitioners, shall be in charge of a registered pharmacist. A registered assistant pharmacist may be left in charge of a store, dispensary, pharmacy, laboratory or office for the sale, dispensing, or compounding of drugs, medicines or chemicals or for the dispensing of prescriptions of medical practitioners only during the temporary absence of the registered pharmacist. Temporary absence within the meaning of this act shall be held to be only those unavoidable absences which may occur during a day's work, and when the registered pharmacist in charge shall be within immediate call, ready and able to assume the direct supervision of said pharmacy. No registered assistant shall conduct a phar-

macy. Every store or shop where drugs, medicines or chemicals are dispensed or sold at retail, or displayed for sale at retail, or where prescriptions are compounded, which has upon it or in it as a sign, the words, "pharmacist," "pharmaceutical chemist," "apothecary," "druggist," "pharmacy," "drug store," "drugs," or any of these words, or the characteristic show-bottles or globes, either colored or filled with colored liquids, shall be deemed a "pharmacy" within the meaning of this act.

Sec. 2. Any person in order to be a registered pharmacist must be a licentiate in pharmacy, or a practicing pharmacist.

Sec. 3. Licentiates in pharmacy are persons who have had five years' experience in stores where the prescriptions of medical practitioners are compounded, and shall have passed an examination before the State Board of Pharmacy, or who shall present satisfactory evidence to the said board that they have had twenty years' actual experience in the practice of pharmacy; provided, that graduates from a reputable college of pharmacy may be registered after eighteen years of like experience. Practicing pharmacists are persons who, at the passage of this act, are registered as such, and who shall have on or before the first day of January next succeeding the passage of this act paid to the Board of Pharmacy of this State all moneys due for renewal of registration as required by the acts of the Legislature regulating the practice of pharmacy in the State of California, approved March 11, 1891, and March 15, 1901.

Sec. 4. Registered assistant pharmacists are persons who at the time of the passage of this act are already registered as such, and who shall have on or before the first day of January next succeeding the passage of this act

paid to the Board of Pharmacy of this State all moneys due for renewal of registration as required by the acts of the Legislature regulating the practice of pharmacy in the State of California, approved March 11, 1891, and March 15, 1901; **provided**, that no person shall be examined or registered as a licentiate, unless such person has had five years' experience in a pharmacy under the supervision of a registered pharmacist; **and provided further**, that no person shall be examined or registered as an assistant pharmacist from and after the passage of this act unless such person shall be not less than eighteen years of age and has had not less than three years' instruction and experience in a pharmacy, under a registered pharmacist; or has been registered as an apprentice as provided in Section 15 of this act for not less than three years; **and provided further**, that an applicant for registration as an assistant pharmacist must first pass a satisfactory examination before the Board of Pharmacy.

Sec. 5. The Governor shall appoint seven competent registered pharmacists, residing in different parts of the State, to serve as a Board of Pharmacy. The members of the board shall, within thirty (30) days after their appointment, individually take and subscribe before the County Clerk, in the county in which they individually reside, an oath faithfully and impartially to discharge the duties prescribed by this act. They shall hold office for the term of four (4) years, and until their successors are appointed and have qualified. In case of vacancy in the Board of Pharmacy the Governor shall fill the same by appointing a member to serve for the remainder of the term only. The office of the board shall be located in San Francisco. The board shall organize by electing a president, a secretary and a treasurer. The secre-

tary may or may not be a member of the board, as the board in its sound discretion shall determine. The secretary and treasurer shall each give a satisfactory bond running to the Board of Pharmacy in a sum of not less than two thousand dollars, and such greater sum as the board may from time to time require for the faithful discharge of their respective duties.

Sec. 6. It shall be the duty of the secretary to keep a book of registration open at the city of San Francisco, in which shall be entered under the supervision of the board the names, titles, qualifications and places of business of all persons coming under the provisions of this act. The secretary shall give receipts for all moneys received by him and pay the same to the treasurer of the board, taking his receipt for the same. The treasurer shall disburse the same by order of the board for necessary expenses, taking proper vouchers therefor. The balance of said money, after paying the expenses of the board, he shall pay to the State Treasurer, who shall keep it in a special fund to be used in carrying out the provisions of this act. It shall be the duty of the secretary of the board to erase from the register the name of any registered pharmacist or assistant pharmacist who has died, or who in the opinion of the board has forfeited his right under the law to do business in this State. Besides the duties required by this act, it shall be the duty of the secretary to perform such other reasonable duties appertaining to his office as may be required of him by the Board of Pharmacy. The secretary shall receive such compensation as may be fixed by the Board of Pharmacy; if he be a member of the board, then such compensation shall be in addition to his per diem as a member of said board.

Sec. 7. Four members of the board

shall constitute a quorum. They shall hold a meeting at least once in every four months.

Powers and Duties of the Board.

Subdivision 1. The State Board of Pharmacy shall have power:

(a) To make such by-laws and regulations, not inconsistent with the laws of this State, as may be necessary for the protection of the public, appertaining to the practice of pharmacy and the lawful performance of its duties.

(b) To regulate the practice of pharmacy.

(c) To regulate the sale of poisons.

(d) To regulate the quality of all pharmaceutical preparations and medicines dispensed or sold in this State, using the United States Pharmacopœia or National Formulary as the standard.

(e) To investigate all complaints as to the quality and strength of all pharmaceutical preparations and medicines, and to take such action as may be necessary to prevent the sale of such as do not conform to the standard and tests prescribed in the latest edition of the United States Pharmacopœia or National Formulary.

(f) To employ inspectors of pharmacy and to inspect during business hours all pharmacies, dispensaries, stores or places in which drugs, medicines and poisons are compounded, dispensed or retailed, and to cause the prosecution of all persons whenever there appears to the board to be reasonable ground for such action.

(g) To examine and register as pharmacists and assistant pharmacists all applicants whom it shall deem qualified to be such. All persons applying for registration, under this act, shall pay the following fees therefor to the secretary of the Board of Pharmacy: Every applicant for registration other than that of an apprentice, shall pay a fee of ten dollars on filing his or her application, which shall be compensa-

tion to the Board of Pharmacy for investigation or examination of the applicant; and if the board finds that any applicant for registration on experience and credentials is entitled to be registered, then he or she shall pay an additional fee of fifteen dollars upon the issuance of certificate of such registration; and any licentiate found by the board on examination to be entitled to a certificate shall pay the additional sum of five dollars upon issuance of certificate; all applicants for examination as assistant if found satisfactory by the board, shall be entitled to their certificate without further fee, and provided further, that an applicant for registration on experience and credentials may at his or her option be examined as a licentiate without further fee for application.

(h) In the event any person having registered shall have lost his or her certificate or the same has been destroyed or if he or she desires renewal of the same, a new certificate may be issued by said board upon the applicant paying therefor the sum of three dollars; provided further, that where the original certificate is not lost or destroyed, then the certificate shall be surrendered before a renewal of same shall be issued; and provided further, that the board shall have power to require satisfactory evidence from the applicant of the loss or destruction of certificate; and provided further, that where the applicant is delinquent for the annual dues required by this act then he or she shall be required to pay to said board sufficient fees to cover his delinquency in that behalf before he or she shall be entitled to a reissue of the certificate in this subdivision provided for.

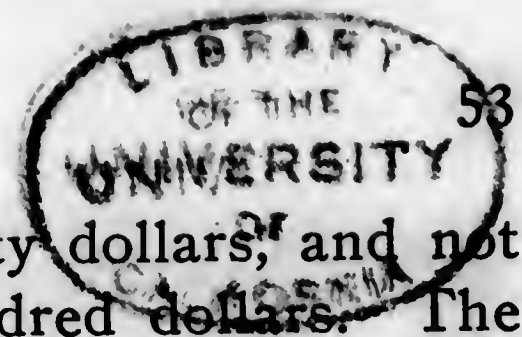
Sec. 8. No member of the board shall teach pharmacy in any of its branches, unless it be as a teacher in a public capacity and in a college of

pharmacy. The members of the Board of Pharmacy shall each be paid the sum of eight dollars per diem for every meeting of the board which they attend, together with their necessary expenses, and mileage at the rate of five cents per mile for each mile necessarily traveled. All compensation of members and all other expenses of the board shall be paid out of the examination and registration fees and fines.

Sec. 9. Every person holding a certificate from said board shall renew annually their registration with said board; and every registered pharmacist, and every assistant registered pharmacist who desires to retain his registration on the books of the Board of Pharmacy in this State shall annually, after the expiration of the first year's registration and on or before the first day of July of each succeeding year, pay to the secretary of the Board of Pharmacy a renewal fee, to be fixed by the board, which shall not exceed two dollars for registered pharmacist and one dollar for assistant registered pharmacist, in return for which fee a certificate of registration shall be issued. In case any person defaults in payment of said fee his or her registration may be revoked by the Board of Pharmacy on sixty days' notice, in writing from the secretary, unless within said time the fee is paid, together with such penalty not exceeding ten dollars, as the board may impose. Upon payment of said fee and penalty the board must reinstate the delinquent's registration. No person having received, or who may hereafter receive a certificate of registration as a pharmacist or assistant pharmacist, shall engage in business as pharmacist or assistant pharmacist, in any county of this State in which he or she shall locate, or into which he or she shall afterwards remove, until he or she shall have had such certificate recorded in

the office of the County Clerk of such county, and it is hereby made the duty of the County Clerk to record such certificate in a book to be provided and kept for that purpose, and the County Clerk is authorized to charge a fee of fifty cents for the recording of such certificate—to be paid by the person offering such certificate for record. Each pharmacist or assistant pharmacist holding a certificate of registration as a pharmacist, or assistant pharmacist, and being engaged in business as a pharmacist, or assistant pharmacist, shall have such certificate recorded, as is in this section provided, within thirty days after the taking effect of this act. The record of the certificate required by this section, or a certified copy thereof, shall be evidence in all courts that the person holding it was registered as evidenced by said certificate on the date of the same. Any registered pharmacist or assistant registered pharmacist failing to comply with any of the foregoing provisions shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than five dollars nor more than twenty-five dollars. Upon the certificate being recorded as herein provided, it shall be the duty of the County Clerk to notify the secretary of the Board of Pharmacy of the name of the party and the date of such record.

Sec. 10. Every person upon receiving a certificate of registration under this act, or who has heretofore received a certificate of registration in this State, shall keep his last receipt for re-registration conspicuously exposed in his place of business. Every registered pharmacist, and assistant pharmacist, shall within thirty days after the changing of his place of business as designated on the books of the Board of Pharmacy, notify the secretary of the board of his new place of business, and upon receipt of said notification the



secretary shall make the necessary change in his register.

Sec. 11. Every proprietor or manager of a pharmacy or drugstore shall be held responsible for the quality of all drugs, chemicals and medicines sold or dispensed by him, except those sold in the original package of the manufacturer, and except those articles or preparations known as patent or proprietary medicines. Any person who shall knowingly, willfully, or fraudulently falsify or adulterate, or cause to be falsified or adulterated, any drug or medicinal substance, or any preparation authorized or recognized by the pharmacopœia of the United States, or used, or intended to be used in medical practice, or shall mix, or cause to be mixed, with any such drug or medicinal substance, any foreign or inert substance whatever, for the purpose of destroying or weakening its medicinal power and effect, or of lessening its cost, and shall wilfully, knowingly, or fraudulently sell the same, or cause it to be sold, for medicinal purposes, shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars, and not more than two hundred dollars, or by imprisonment for not less than fifty days and not more than two hundred days, or by both such fine and imprisonment. Every registered pharmacist shall file, or cause to be filed, all physicians' prescriptions, or a copy thereof, compounded or dispensed in his pharmacy or store. They shall be preserved for at least two years, and he shall furnish a correct copy of any prescription, only under the order or request of the physician writing the same. Any person who shall wilfully violate any of these provisions shall be guilty of a misdemeanor and upon conviction thereof shall be liable to a fine not exceeding fifty dollars; and for each subsequent offense shall be liable to a fine

of not less than fifty dollars, and not more than one hundred dollars. The State Board of Pharmacy may at any time, when in their judgment it appears advisable, deputize one of their members, or any other competent person to investigate any suspected violation of any of the provisions of this act, and if the result of such investigation seems to the board to justify such action the board shall cause the prosecution of any person violating any of the provisions of this act.

Sec. 12. Any person who shall attempt to secure, or secures registration for himself or any other person under this act by making, or causing to be made, any false representations, or who shall fraudulently represent himself to be registered, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be liable to punishment by a fine not exceeding one hundred dollars, or by imprisonment for a term not exceeding fifty days, or by both such fine and imprisonment. Any person who shall permit the compounding of prescriptions of medical practitioners, or the selling of drugs and medicines, in his or her store or pharmacy, except under the direct, immediate and personal supervision of a registered pharmacist, or any person not registered who shall retail medicine, poison or chemicals, except in a pharmacy under the direct, immediate and personal supervision of a registered pharmacist, or any person violating any of the provisions of this act, when no other penalty is provided, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be liable to punishment by a fine of not less than twenty dollars, and not more than one hundred dollars, or by imprisonment of not exceeding fifty days, or by both such fine and imprisonment. All fines recoverable under this act shall be paid by the magistrate receiving the same to the

State Board of Pharmacy. Any person convicted of violating the provisions of this act the third time shall in addition to the penalties hereinbefore mentioned have his or her registration as a pharmacist canceled. Nothing in this act shall apply to or interfere with any practitioner of medicine who is duly registered as such by the State Board of Medical Examiners of this State with supplying his own patients, as their physician, and by them employed as such, with such remedies as he may desire and who does not keep a pharmacy, open shop, or drug store advertised or otherwise, for the retailing of medicines or poisons, nor does this act apply to the exclusively wholesale business of any dealer. Nor does this act apply to registered trade-marked or copyrighted proprietary medicines, registered in the United States patent office nor to the sale of proprietary medicines, when manufactured under the supervision of a registered pharmacist in the State of California for which trade-marks may have been filed with the Secretary of State of California, by merchants possessing a license issued by the Board of Pharmacy as described in Section Sixteen of this Act.

Sec. 13. Any proprietor of a pharmacy, who not being a registered pharmacist, shall fail or neglect to place in charge of such pharmacy a registered pharmacist, or any such proprietor who shall by himself, or any other person, permit the compounding of prescriptions, or the vending of drugs, medicines, or poisons, in his or her store or place of business, except by or in the presence and under the direct, immediate and personal supervision of a registered pharmacist, or any person, not being a registered pharmacist, who shall take charge of or act as manager of such pharmacy, or store, or who, not being a registered pharmacist, retails,

compounds, or dispenses drugs, medicines, or poisons, shall be guilty of a misdemeanor, and upon conviction thereof shall be liable to a fine of not less than twenty dollars and not more than one hundred dollars, or by imprisonment for a term of not exceeding fifty days, or by both such fine and imprisonment.

Sec. 14. Any member of the board of pharmacy or inspector duly authorized by said board may examine applicants orally or in writing, and issue a temporary certificate to practice pharmacy which shall authorize such practice for a period of four months only from its date. The issuance of such temporary certificate shall not entitle the holder thereof to a permanent certificate, and no permanent certificate shall be issued to such holder until he passes a satisfactory examination by the board. Only one temporary certificate shall ever be issued to the same applicant, and no temporary certificate shall be granted to any person whose application has been denied by the board. The member or authorized inspector conducting such examination as herein set forth shall be entitled to charge and receive the sum of three dollars for such certificate, said moneys to be paid to the secretary of the board of pharmacy.

Sec. 15. It shall be the duty of all registered pharmacists who take into their employ an apprentice, whose purpose it is to become a pharmacist, to report to the board of pharmacy such facts regarding his schooling and preliminary qualifications as the board of pharmacy may require for the purpose of registration as an apprentice. The board of pharmacy shall adopt a standard of qualifications regarding schooling and preliminary qualifications for all persons desiring to be registered as apprentices, as provided for in this section. The pharmaceutical experience

of every apprentice shall, after the passage of this act, be deemed to begin on the date on which he began the study of pharmacy, and such date shall be inserted in the certificate of registration of said apprentice, **provided** the preliminary qualifications have been found satisfactory by the board. Sworn testimony shall be furnished the board upon which they shall determine the date as aforesaid. The date so determined and entered as aforesaid shall be deemed to be the beginning of the applicant's pharmaceutical experience for the purpose of this act; **provided**, that the students matriculating and attending any reputable college of pharmacy shall be registered as apprentices upon such fact being shown. The board shall keep a register for the registration of apprentices and furnish upon application proper blanks for this purpose. No apprentice shall be permitted to sell drugs, medicines, or poisons, or compound prescriptions except under the direct, immediate and personal supervision of a registered pharmacist. No registered apprentice shall ever be left in charge of a pharmacy. No applicant for registration as an apprentice shall be registered as such if such applicant has had more than three years' experience in a pharmacy, but must apply for registration as assistant pharmacist.

Sec. 16. The board of pharmacy may in its discretion issue a permit to general dealers in rural districts, in which the conditions, in their judgment, do not justify the employment of a registered pharmacist, and where the store of such general dealer is not less than two miles distant from the store of a registered pharmacist which said permit shall authorize the person or firm named therein to sell such ordinary drugs and ordinary household remedies and in such manner and form as the board may from time to time specify, in said locality, but not elsewhere, un-

der such restrictions and regulations as said board may from time to time adopt. The board shall charge an annual fee of twelve dollars in advance, for such permit, and it shall be unlawful for any dealer to sell any drugs or ordinary household remedies without complying with the requirements of this section.

Whenever a registered pharmacist shall establish a pharmacy within two miles by the shortest road, from the place of business of such general dealer, no further license shall be granted, and the license already issued shall be void; and the board of pharmacy shall refund to said general dealer the proper proportion of the unexpired license-fee paid to the board of pharmacy.

Sec. 17. It shall be the duty of the board of pharmacy, by resolution, at least annually to request the chief of police, marshal or constable of every city, town, or township in this State, to furnish a list of all drug stores, together with the names of the owners, managers, and all employes in said stores, and a brief statement of the capacity in which said persons are employed in said stores, and also the firm name of all stores retailing drugs, medicines or poisons. Upon such request in writing, it shall be the duty of the chief of police, marshal, or constable of said city, town, or township to require the patrolmen or deputies under their command, upon their respective beats, to obtain such lists as are in this section specified, and deliver the same to the board of pharmacy. It shall be the duty of the owner or manager of any drug store or other store retailing drugs, medicines or poisons, when called upon by an officer as above set forth, or by a member of the board of pharmacy, or a duly authorized inspector, to furnish said officer, member of the board of pharmacy or duly author-

ized inspector with the information required. Any person refusing to furnish the information, or wilfully furnishing information that is false or untrue shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than twenty dollars nor more than fifty dollars, or by imprisonment for not less than ten days and not more than thirty-five days, or by both such fine and imprisonment.

Sec. 18. The several penalties prescribed in this act may be recovered in any court having jurisdiction, by a civil action instituted by the board of pharmacy, in the name of the State of California, or by criminal prosecution upon complaint being made; and it shall be the duty of the District Attorney of the county wherein violations of the provisions of this act occur to conduct all such actions and prosecutions at the request of the board.

Sec. 19. All persons registered under this act shall be exempt and free from jury duty.

Sec. 11 (of the Act approved March, 1907, amending the old law). This act shall take effect sixty days from the date of its approval.

DRUG CLERKS' TEN-HOUR LAW.

An act to amend an act entitled "An act to regulate the work and hours of employes engaged in selling at retail drugs and medicines, and compounding physicians' prescriptions and providing a penalty for the violation thereof." Approved February 28, 1905.

The people of the State of California, represented in senate and assembly, do enact as follows:

Drug clerks, hours of labor of.

Section 1. As a measure for the protection of public health, no person employed by any person, firm or corporation, shall for more than an aver-

age of ten hours a day or sixty hours a week of six consecutive calendar days perform the work of selling drugs or other medicines, or compounding physicians' prescriptions, in any store, establishment or place of business, where and in which drugs or medicines are sold at retail, and where and in which physicians' prescriptions are compounded; **provided** that the answering of and attending to emergency calls shall not be construed as a violation of this act.

Employer not to permit longer hours.

Section 2. No person, firm or corporation employing another person to do work which consists wholly or in part of selling, at retail, drugs or medicines, or of compounding physicians' prescriptions, in any store, or establishment or place of business where or in which medicines are sold and where and in which physicians' prescriptions are compounded shall require or permit said employed person to perform such work for more than average of ten hours a day, or sixty hours a week of six consecutive calendar days.

Penalty.

Section 3. Any person, firm or corporation violating any of the provisions of this act shall be deemed guilty of misdemeanor and shall be punished therefor by a fine not less than twenty dollars nor more than fifty dollars or by imprisonment for not exceeding sixty days, or by both such fine and imprisonment, at the discretion of the court.

Section 4. The commissioners of the state bureau of labor statistics are hereby authorized, directed and empowered to enforce the provisions of this act.

Section 5. All acts or parts of acts inconsistent with the provisions of this act are hereby repealed.

THE ITINERANT VENDOR BILL.

An Act Imposing a License Upon Itinerant Vendors of Drugs, Nostrums, Ointments, or Appliances Sold for the Cure of Diseases, Injuries, or Deformities. Approved 1903 and amended 1907.

The bill as amended will read:

Section 1. No person, as principal or agent, shall conduct as an itinerant vendor the business of selling drugs, nostrums, ointments, or any appliances for the treatment of disease, deformities, or injuries, within this State, without previously obtaining a license therefore as herein provided.

Section 2. A license fee of **one hundred** dollars is hereby levied upon all such itinerant vendors doing business in this State. Said tax shall be paid to the state board of pharmacy, for the use and benefit of the State of California, and shall constitute a special fund for the enforcement of this act, and of the provisions of the act or acts creating such board of pharmacy. Upon the receipt of said sum from any persons desiring to conduct such business within this State, the secretary of said board of pharmacy shall issue a license to such person to carry on such business within this state for the term of **six months next ensuing**; provided that nothing in this act shall be construed to prevent the collection of any tax or license that may be imposed by any county or municipal authority; **and provided, further**, that nothing herein contained shall prevent manufacturing pharmaceutical firms from placing their products on the market through their agents and managers, subject to the provisions of section three of this act. The said board of pharmacy may allow such license to be transferred during the life thereof on such terms as the board of pharmacy may deem proper;

provided, however, that nothing in this act shall be held to repeal or modify the provisions of an act approved March 20, 1905, "An act permitting all ex-Union soldiers and sailors of the civil war, honorably discharged from military or marine service of the United States, the right to vend, hawk, and peddle goods, wares, fruits or merchandise not prohibited by law, in any county, town or village, incorporated city or municipality in the State of California, without paying a license.

Sec. 3. Itinerant vendors under the meaning of this act shall include all persons who carry on the business above described by passing from house to house, or by haranguing the people on the public streets or in public places, or use the various customary devices for attracting crowds and therewith recommending their wares and offering them for sale.

Sec. 4. Said board of pharmacy shall on the first day of July of each year make a verified and itemized statement in writing to the controller of this State, of all receipts and disbursements of money coming into their hands by reason of this act.

Sec. 5. Any person violating any of the provisions of this act, who shall without such license, sell or offer for sale any of the above described drugs, nostrums, ointments, or appliances, shall be deemed guilty of a misdemeanor, and for such breach of this act upon conviction therefor, shall be punished by a fine of not less than one hundred dollars nor more than two hundred and fifty dollars, or by imprisonment in the county jail for not less than fifty days or more than one hundred and twenty days, or both such fine and imprisonment. All fines recovered under this act shall be paid by the magistrate receiving the same to the state board of pharmacy, and by

said board placed in the special fund created by section two of this act.

Sec. 6. In all actions or prosecutions under this act it need not be alleged in the complaint nor proved by the prosecution that the defendant has not a license as required in this act, but the fact that he has such license may be plead as a matter of defense.

Sec. 7. All acts or parts of acts conflicting with this act are hereby repealed, in and so far as they conflict.

Sec. 8. This act shall take effect and be in force sixty days after its passage.

THE CALIFORNIA PURE DRUGS ACT

An Act for the Prevention of the Manufacture, Sale or Transportation of Adulterated, Misbranded or Misbranded Drugs, Regulating the Traffic in Drugs and Providing Penalties for Violation Thereof.

The people of the State of California represented in senate and assembly do enact as follows:

Section 1. The manufacture, production, preparation, compounding, packing, selling, offering for sale or keeping for sale within the State of California, or the introduction into this state from any other state, territory, or the District of Columbia, or from any foreign country, of any drug which is adulterated, mislabeled or misbranded within the meaning of this act is hereby prohibited. Any person, firm, company, or corporation who shall import or receive from any other state or territory or the district of Columbia or from any foreign country, or who having so received shall deliver for pay or otherwise, or offer to deliver to any other person, any drug adulterated, mislabeled or misbranded within the meaning of this act, or any person who shall manufac-

ture or produce, prepare or compound, or pack or sell, or offer for sale, or keep for sale, in the State of California, any such adulterated, mislabeled, or misbranded drug, shall be guilty of a misdemeanor; provided, that no article shall be deemed misbranded, mislabeled or adulterated within the provisions of this act when intended for export to any foreign country and prepared or packed according to the specifications or directions of the foreign purchaser when no substance is used in the preparation or packing thereof in conflict with the laws of the foreign country to which said article is intended to be shipped; but if said article shall be in fact sold or offered for sale for domestic use or consumption, then this proviso shall not exempt said article from the operation of any of the other provisions of this act.

Sec. 2. That the term "drug" as used in this act, shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease of either man or other animals.

Sec. 3. The standard of purity of drugs shall be the United States Pharmacopœia and National Formulary and the regulations and definitions adopted for the enforcement of the national food and drugs act of June 30, 1906, shall be adopted by the state board of health for the enforcement of this act.

Sec. 4. Drugs shall be deemed adulterated within the meaning of this act in any of the following cases:

First. If, when a drug is sold under or by a name recognized in the United States Pharmacopœia or National Formulary, it differs from the standard of strength, quality or purity, as deter-

mined by the test laid down in the United States Pharmacopœia or National Formulary official at the time of investigation; provided, that no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality, or purity be plainly stated upon the package thereof although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary.

Second. If the strength or purity fall below the professed standard or quality under which it is sold.

Sec. 5. That the term "misbranded" as used herein shall apply to all drugs, the package or label of which shall bear any statement, design, or device, regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any drug which is falsely branded or labeled as to the county, city and county, city, town, state, territory, District of Columbia or foreign country in which it is manufactured or produced.

Sec. 6. Drugs shall be deemed mislabeled or misbranded under the meaning of this act in either of the following cases:

First. If it be an imitation of or offered for sale under the name of another article.

Second. If the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if the package as offered for sale at retail or wholesale, fail to bear a statement on the label of the per cent of volume of alcohol, or the quantity of any morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, acetanilide, or any derivative

or preparation of any such substances contained therein, except when prescribed by a licensed physician, licensed dentist, or licensed veterinary surgeon.

Sec. 7. The term "package" as used in this act shall be construed to include any phial, bottle, jar, demijohn, carton, bag, case, can, box or barrel or any receptacle, vessel or container of whatsoever material or nature which may be used by a manufacturer, producer, jobber, packer or dealer, for inclosing any drug.

Sec. 8. The sale or offering for sale of any adulterated, mislabeled or misbranded drug by any manufacturer, producer, jobber, packer or dealer in drugs, or broker, commission merchant, agent, employee or servant of any such manufacturer, producer, jobber, packer or dealer, shall be prima facie evidence of the violation of this act.

Sec. 9. Whenever required by the state board of health or its secretary, examinations and analyses of drugs on sale in California suspected of being adulterated, mislabeled or misbranded, shall be made by the director of the state laboratory for the examination and analysis of foods and drugs. Said state board of health or the secretary may appoint such agent or agents as it may deem necessary for the enforcement of this act, and the sheriffs of the respective counties of the state are hereby appointed and constituted such agents. Any agent or sheriff shall have the right to purchase at the place of business of any manufacturer or dealer, any drug suspected of being adulterated, mislabeled or misbranded within the meaning of this act, tendering the market price of said articles, if a sale be refused, he may take from any person, firm or corporation samples of any articles suspected of being adulterated, mislabeled and misbrand-

ed, and shall deliver or forward such samples to the said director of the state laboratory for examination and analysis.

Sec. 10. It shall be the duty of the state board of health whenever it has satisfactory evidence of the violation of any of the provisions of this act respecting the adulteration, mislabeling or misbranding of drugs, to report such facts to the district attorney of the county where the law is violated.

Sec. 11. It shall be a misdemeanor for any person to refuse to sell to any sheriff or other agent of the state board of health, any sample of drug upon tender of the market price therefor, or to conceal any such drug from such officer, or to withhold from him information where such drug is kept or stored. Any such person so refusing to sell, or concealing such drug, or withholding such information from said officer, shall upon conviction be punished as provided in section nineteen of the Penal Code of the State of California.

Sec. 12. Whenever said director shall find from his examination and analysis that adulterated, mislabeled or misbranded drugs have been on sale in this state, he shall forthwith report to the secretary of the state board of health, and shall promptly transmit a certificate of the facts so found to the district attorney of the county in which said adulterated, mislabeled or misbranded drug was found.

Sec. 13. Every certificate signed by the said director of the state laboratory shall be prima facie evidence of the facts therein stated.

Sec. 14. The said director of the state laboratory shall make an annual report to the state board of health, on or before August first of each year, upon adulterated, mislabeled or misbranded drugs, in which report shall be included the list of cases examined

by him in which adulterants were found, and the list of articles found mislabeled or misbranded, and the names of the manufacturers, producers, jobbers and sellers. Said report, or any part thereof, may, in the discretion of the state board of health, be included in the report which the state board of health is already authorized by law to make to the governor. The state board of health may, in its discretion, publish any part of said report in any issue of its monthly bulletin.

Sec. 15. When the examination or analysis of the director of the state laboratory shows that any of the provisions of this act have been violated, notice of that fact together with a copy of the certificate of the findings, shall be furnished to the party or parties from whom the sample was obtained or who executed the guaranty as provided in this act, and a date shall be fixed by the secretary of the board of health at which time said party or parties may be heard before the state board of health or any two members thereof, and the secretary. The hearing shall be held in the city of Sacramento and at least fifteen days' notice thereof shall be first served upon the party complained of. These hearings shall be private and confined to questions of fact. The parties interested therein may appear in person or by attorneys and may propound the interrogatories and submit oral or written evidence to show any fault or error in the findings made by the director of the state laboratory. If the examination or analysis be found correct, or if the party or parties fail to appear at such hearing, after notice duly served as provided herein, the secretary of the state board of health shall forthwith transmit a certificate of the facts so found to the district attorney of the county in which said adul-

terated, mislabeled or misbranded drug was found. No publication thereof shall be made until after said hearing is concluded.

Sec. 16. It is hereby made the duty of the sheriff of any county of this state, on presentation to him of a verified complaint of the violation of any provisions of this act, at once to obtain by purchase a sample of the adulterated, mislabeled or misbranded drug complained of and divide said article into three parts, and each part shall be sealed by the sheriff with a seal provided for that purpose. If the package be less than four pounds or in volume less than two quarts, three packages of approximately the same size shall be purchased and the marks and tags upon each package noted as above. One sample shall be delivered to the party from whom procured, or to the party guaranteeing said drug, one sample shall be sent to the director of the state laboratory, and the third sample shall be sent to and held under seal by the state board of health.

Sec. 17. For his services hereunder the said sheriff shall be allowed the same fees for travel allowed by law to sheriffs on service of criminal process, together with such compensation as by the board of supervisors of his county may be deemed reasonable, and all accounts expended by him in procuring and transmitting the said samples, which fees and amount expended shall be audited and allowed by the said supervisors and paid by his said county as other bills of said sheriff.

Sec. 18. It shall be the duty of the district attorney of each county to prosecute all violations of the provisions of this act occurring within his county.

Sec. 19. Any person, firm, company or corporation violating any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction

shall be punished by a fine of not less than twenty-five dollars, not more than five hundred dollars, or shall be imprisoned in the county jail for a term not exceeding six months, or by both such fine and imprisonment. Drugs found to be adulterated or misbranded within the meaning of this act may, by order of any court or judge, be seized and destroyed.

Sec. 20. One-half of all fines collected by any court or judge for the violations of the provisions of this act shall be paid to the state treasurer and the state treasurer shall deposit such money to the credit of the fund for the maintenance of the state laboratory, to be drawn against by warrants of the state controller upon claims which shall be approved by the state board of examiners.

Sec. 21. No dealer shall be prosecuted under the provisions of this act, when he can establish a guaranty signed by the wholesaler, jobber, manufacturer or other party residing in the United States from whom he purchased such article, to the effect that the same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty, to afford protection, must contain the name and address of the party or parties making the sales of such article to said dealer, and an itemized statement showing the articles purchased; or a general guaranty may be filed with the secretary of the United States Department of Agriculture by the manufacturer, wholesaler, jobber or other party in the United States and be given a serial number, which number shall appear on each and every package of goods sold under such guaranty with the words guaranteed under the food and drugs act, June 30, 1906. In case the wholesaler, jobber, manufacturer or other party making such guaranty to said dealer resides without

this state, and it appears from the certificate of the director of the state laboratory that such article or articles were adulterated or misbranded, within the meaning of this act, or the national pure food act, approved June 30, 1906, the district attorney must forthwith notify the attorney-general of the United States of such violation.

Sec. 22. This act shall be in force and effect from and after the first day of January, nineteen hundred and eight.

THE NEW POISON LAW

An act to regulate the sale of poisons in the State of California and providing a penalty for the violation thereof.

The people of the State of California, represented in senate and assembly, do enact as follows:

Section 1. It shall be unlawful for any person to vend, sell, give away or furnish either directly or indirectly, any poisons enumerated in schedule "A" or in Sections 8 and 9 as hereinafter set forth in this act, without labeling the package, box, bottle or paper in which said poison is contained, with the name of the article, the word "Poison" and the name and place of business of the person furnishing the same. Said label shall be substantially in the form hereinafter provided. It shall be unlawful to sell or deliver any of the poisons named in Schedule "A" or any other dangerously poisonous drug, chemical, or medicinal substance, which may from time to time be designated by the State Board of Pharmacy of California, unless on inquiry it is found that the person desiring the same is aware of its poisonous character, and it satisfactorily appears that it is to be used for a legitimate purpose. It shall be unlawful for any person to give a fictitious name or make any false repre-

sentations to the seller or dealer when buying any of the poisons thus enumerated. Printed notice of all such additions to the schedule of poisons named and provided for in this section, and the antidote adopted by the board of pharmacy for such poisons, shall be given to all registered pharmacists with the next following renewal of their certificates. It shall be unlawful to sell or deliver any poison included in schedule "A" or the additions thereto, without making, or causing to be made, an entry in a book kept solely for that purpose, stating the date and hour of sale, and the name, address, and signature of the purchaser, the name and quantity of the poison sold, the statement by the purchaser of the purpose for which it is required, and the name of the dispenser, who must be a duly registered pharmacist.

Said book shall be in form substantially as follows:

This book shall always be open for inspection by the proper authorities, and shall be preserved for at least five (5) years after the date of the last entry therein.

Sec. 2. The label required by this act, to be placed on all packages of poison, shall be printed upon red paper in distinct white letters, or in distinct red letters upon white paper, and shall contain the word "poison," the "vignette" representing the skull and crossbones, and the name and address of the person or firm selling the same. The name of an antidote, if any there be for the poison sold, shall also be upon the package. No poison shall be sold or delivered to any person who is less than eighteen years of age.

Sec. 3. It shall be the duty of the State Board of Pharmacy to adopt a schedule of what in their judgment are the most suitable common antidotes for the various poisons usually sold.

After the board has adopted the schedule of antidotes as herein provided for, they shall have the same printed and shall forward by mail one copy to each person registered upon their books, and to any other person applying for the same. The particular antidote adopted (and no other) shall appear on the poison label, provided for in Section 2 of this act, or be attached to the package containing said poison. The board shall have power to revise and amend the list of antidotes from time to time, as to them may seem advisable. The entries in the poison book and the printed or written matter provided for in Sections 2 and 3 of this act, shall be in the English language, provided that the vendor of said poison may enter the same in any foreign language he may desire, in addition to said entry and label in English.

Sec. 4. When in the opinion of the State Board of Pharmacy, it is in the interest of the public health, they are hereby empowered to further restrict, or prohibit the retail sale of any poison by rules, not inconsistent with the provisions of this act, by them to be adopted, and which rules must be applicable to all persons alike. It shall be the duty of the board, upon request, to furnish any dealer with a list of all articles, preparations and compounds, the sale of which is prohibited or regulated by this act.

Sec. 5. Wholesale dealers and pharmacists shall affix or cause to be affixed to every bottle, box, parcel, or other enclosure of an original package containing any of the articles named in schedule "A," the additions thereto, or in sections 8 and 9 of this act, a suitable label, or brand, with the word "poison," but they are hereby exempted from the registration of the sale of such articles when sold at wholesale to a registered pharmacist, physician, dentist, or vet-

erinary surgeon duly licensed to practice in the State; provided, that the provisions of this act shall not apply to the sale of such upon the prescriptions of practicing physicians, dentists, or veterinary surgeons who are duly licensed to practice in this State.

Sec. 6. It is hereby made the duty of the district attorney of the county wherein any violation of this act is committed to conduct all actions and prosecutions for the same, at the request of the board of pharmacy.

Sec. 7. Any person violating any of the provisions of this act, shall be guilty of a misdemeanor and upon conviction of the same shall be punished by a fine of not less than thirty dollars, or by imprisonment for not less than fifteen days, or by both such fine and imprisonment. All fines recovered under this act, shall be paid by the magistrate receiving the same, to the State Board of Pharmacy.

Schedule "A"

Arsenic, its compounds and preparations, chloroform, carbolic acid, chloral hydrate, corrosive sublimate and other poisonous derivatives of mercury, corrosive sublimate tablets, and antiseptic tablets, containing corrosive sublimate, cyanide of potassium, essential oil of bitter almonds, ether, hydrocyanic acid, lysol, oils of croton, rue, savin, and tansy, pennyroyal, phosphorus and its poisonous derivatives, strophanthus, tartar emetic, and other poisonous derivatives and preparations of antimony, aconite, belladonna, nux vomica, veratrum viride, yellow jessamine, their alkaloids or other preparations, ergot, cotton root, and their preparations.

Sec. 8. The sale of morphine, codeine, heroin, opium and cocaine, their salts, compounds or preparations, is hereby prohibited, unless upon the prescription of a physician, dentist, or veterinary surgeon, licensed to practice in

this State, except preparations of opium containing less than two grains of opium to the fluid ounce.

Sec. 9. The drugs hereinafter named may be sold without registration in the poison book as in this act required; **provided, however,** that in all other respects the requirements of this act as to the sale of poisons must be complied with:

Acid muriatic, nitric, oxalic, and sulphuric, bromine, cocculus indicus, conium, cowhage, creosote, hyoscyamus, Indian hemp, iodine and its tinctures, nitro-glycerine, and its preparations, santonine, sugar of lead, sulphate of zinc, cantharides, digitalis, wood alcohol.

Sec. 10. All acts and parts of acts in conflict with this act are hereby repealed.

Instruction in Pharmacy to Medical Students.

One reason for the dependence of the physicians on proprietary ready-made mixtures is because of the lack of familiarity with the materia medica and pharmacy. It is conceded by all that this lack of knowledge is because of poor instruction in schools of medicine, along these lines, especially as regards courses in pharmacy, including the writing of prescriptions, the proper combination of drugs, their incompatibilities and doses. Instruction in medical schools is insuffi-

cient because, as a rule, these courses are given by physicians who are not sufficiently familiar with the subject, or else they are given by pharmacists who are not teachers. It is, therefore, gratifying to note that the regents of the University of Minnesota have appointed the Dean of the School of Pharmacy to give a course of instruction in the College of Medicine and Surgery. Professor Wulling is well-known as a competent pharmacist and as an efficient and enthusiastic instructor. His appointment, therefore, can only be to the best interests of medical education.

Yesterday, Today, Tomorrow.

The profound truth that tomorrow never comes, and yesterday, although it is always passing, has never been with us, has led a correspondent to throw off this little effort:

"Although yesterday today was tomorrow, and tomorrow today will be yesterday, nevertheless yesterday tomorrow would be the day after tomorrow, because today would be tomorrow yesterday, and tomorrow will be today tomorrow, or would have been the day after tomorrow yesterday." We thought as much.—Tit-Bits.

A man hung up this sign in his shop window: "Any respectable man or woman can have a fit in this store." It is needless to say he was not a druggist. He was a shoemaker.

PHONE WEST 2064

STANLEY ADDERLEY

Importing Broker and Jobber of
Sponges and Chamois

2115 PINE STREET
San Francisco, Cal.

BE SURE AND SEE ADDERLEY BEFORE PLACING YOUR ORDER FOR ABOVE GOODS

PAGING

INCOR

SHOULD

NOT PP 6
PP V

ACTION

RECT

BE PP V-xxiv

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THE STATE BOARDS OF PHARMACY

With secretaries' addresses, and date of next meetings, so far as we have been able to obtain them. If the secretaries will kindly keep us informed of the dates of their meetings, we shall be glad to publish them every month.

Alabama—June 11th, at Blount Springs. E. P. Galt, Selma.

Arizona—A. G. Hulett, Phoenix.

Arkansas—J. F. Dowdy, Little Rock.

California—C. B. Whilden, San Francisco; at Los Angeles, July 17th; at San Francisco, July 22d.

Colorado—W. L. Shockey, Cripple Creek.

Connecticut—A. L. Dickinson, Danbury.

Delaware—O. C. Draper, Wilmington.

District of Columbia—S. L. Hilton, Washington.

Florida—June 12th, at Jackson. D. W. Ramsaur, Palatka.

Georgia—C. D. Jordan, Monticello.

Idaho—L. W. Smith, Boise.

Illinois—F. C. Dodds, Springfield.

Indiana—T. E. Otto, Columbus.

Indian Territory—H. D. Knisley, Checotah.

Iowa—C. W. Phillips, Des Moines.

Kansas—May 23d, at Kansas City. W. E. Sheriff, Ellsworth.

Kentucky—J. W. Gale, Frankfort.

Louisiana—May 3d and 4th, at New Orleans. F. C. Godbold, New Orleans.

Maine—F. H. Wilson, Brunswick.

Maryland—Ephraim Bacon, Roland Park.

Massachusetts—Every Tuesday. W. F. Sawyer, Boston.

Michigan—S. A. Erwin, Battle Creek.

Minnesota—C. J. Moos, Minneapolis.

Mississippi—S. L. Caine, Columbus.

Missouri—Charles Gietner, St. Louis.

Montana—Alfred Whitworth, Deer Lodge.

Nebraska—H. L. Harper, Beatrice.

Nevada—May. F. J. Steinmetz, Carson City.

New Hampshire—F. H. Wingate, Nashua.

New Jersey—H. A. Jorden, Bridgeton.

New Mexico—A. J. Fischer, Santa Fe.

New York—Eastern Branch—May 15th, at New York. Joseph Weinstein, 115 West Sixty-eighth street, New York.

Middle Branch—At Albany. W. L. Bradt, Albany.

Western Branch—At Buffalo. Geo. Reimann, Buffalo.

North Carolina—June 11th, at Lake Toxaway. F. W. Hancock, Oxford.

North Dakota—W. S. Parker, Lisbon.

Ohio—May 14th, at Columbus. W. R. Ogier, Columbus.

Oklahoma—F. B. Lillie, Guthrie.

Oregon—Miss Kitty W. Harbord, Salem.

Pennsylvania—C. T. George, Harrisburg.

Rhode Island—H. A. Pearce, Providence.

South Carolina—F. M. Smith, Charleston.

South Dakota—E. C. Bent, Dell Rapids.

Tennessee—I. B. Clark, Nashville.

Utah—C. H. McCoy, Salt Lake.

Vermont—J. G. Bellrose, Burlington.

Virginia—T. A. Miller, Richmond.

Washington—P. Jensen, Tacoma.

West Virginia—A. Walker, Sutton.

Wisconsin—H. G. Ruenzel, Milwaukee.

Wyoming—F. W. Roedel, Cheyenne.

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are for quantities as ordinarily bought by average buyers, and include containers, unless otherwise indicated. Subject to market changes.

*See foot note.

ACETANILID. 1-lb cart. incl.....lb	35	Muriatic, 6-lb bots.....each	75
Powd., 1-lb cart. incl.....lb	35	Muriatic, C. P., 6-lb bots.....lb	20
ACID. Acetic No. 8, carboys, M. C. W....lb	07	Muriatic, C. P., 1-lb bots.....lb	30
1-lb bottles, M.C.W.....lb	19	Nitric, carboys.....lb	8-8½
5-lb bottles, ".....lb	15	Nitric, 7-lb bots.....lb	1 10
Glacial, M. C. W.....lb	44	Nitric, C. P., 7-lb bots.....lb	20
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21	Nitric, 1-lb bots.....lb	30
Arsenic, Hydrated Pure, Merck's.....oz	14	Nitro-Muriatic.....lb	40
Arsenous, Lumps, Pure, Merck's.....oz	8	Nitrous, fuming.....lb	65
Arsenous, Powd., Pure, Merck's.....oz	8	Oxalic.....lb	10-15
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	60	Oxalic, chem. pure, M. C. W.....lb	30-32
Benzoic, from Toluol, Merck's.....oz	13	Phosphoric, glacial, Merck's.....lb	64
Benzoic, True from Benzoin, Merck's....oz	15	Phosphoric, syrupy (85%).....lb	55
Benzoic, English, Merck, 1-oz boxes.....oz	16	Phosphoric, diluted, M. C. W.....lb	25
Benzoic, English, Merck's.....lb	2 24	Phosphoric, M. C. W., U. S. Pat., 50%..lb	40
Benzoic, Merck's, 1-oz cartons.....lb	12	Phosphoric, glacial, 1-oz vials.....oz	11
Benzoic, Merck's.....lb	62-68	Phosphoric, glacial, 1s, M. C. W.....lb	64
Boracic, crys., M. C. W.....lb	18-20	Picric.....lb	60-70
Boracic, powd., M. C. W.....lb	18-20	Pyrogallic, Resublimated, Merck's.....oz	24
Boracic, im. powd., C. P., 1-lb cart. incl..lb	28	Pyrogallic, Merck's, 1-lb cans.....lb	2 35
Boracic, Squibb's, 500 gram.....lb	43	Pyrogallic, Merck's, ½-lb cans.....lb	2 45
Boric, H. P., Merck's.....lb	34	Pyrogallic, Merck's, ¼-lb cans.....lb	2 55
Boric, powd., pure, Merck's.....lb	27	Pyrogallic, Schering's.....lb	2 50
Boric, Impalp., powd., Merck's.....lb	35	Pyrogallic, Schering's.....½-lb	2 60
Butyric, 100%, Merck's.....oz	27	Pyrogallic, Schering's.....¼-lb	2 70
Butyric, H. P. lb	2 14	Pyrogallic, Schering's, oz. vials.....oz	28
Cacodylic, Merck's ⅛.....oz	4 00	Pyroligneous.....gal	40
Camphoric, Merck's.....oz	49	Salicylic, Merck's, 1-lb cartons.....lb	46
Carbolic, Calvert's No. 1.....lb	2 00	Salicylic, from Oil Wintergreen, Merck's.oz	44
Carbolic, No. 2.....lb	1 50	Salicylic, Amorph., Merck's.....lb	45
Carbolic, M. C. W., gilt label.....lb	31	Salicylic, from Wintergreen, Merck's....oz	44
Carbolic, 5-lb can, gilt label.....lb	27	Succinic, Merck's, oz. bottles.....oz	49
Carbolic, M. C. W., 10-lb can, gilt label..lb	26	Sulphuric, Aromatic.....lb	75
Carbolic, cork stop.....1-lb bot	31	Sulphuric, carboys.....lb	2-2¼
Carbolic, Loose, crys., Merck's.....lb	70	Sulphuric, 9-lb bottles.....lb	1 00
Carbolic, Silver Label, Merck's.....lb	31	Sulphuric, C. P., 9-lb bottles.....lb	20
Carbolic, Solution, 1-lb bot.....doz	40	Sulphuric, C. P., 1-lb bottles.....lb	30
Carbolic, Crude.....gal	40-50	Sulphurous, U. S. P., solution.....lb	25
Chromic, 1-oz vials.....oz	11	Tannic.....lb	90-1 00
Chrysophanic, true, M. C. W., 1-oz vials..oz	28	Tannic, H. P., Merck's.....lb	1 71
Cinnamic, H. P., Merck's.....oz	39	Tartaric, crystallized.....lb	39-45
Citric, crys.....lb	65	Tartaric, powdered.....lb	39-45
Gallic, 1-oz cartons, Merck's.....oz	11	Tri-chlor-acetic, Merck's.....oz	32
Gallic.....lb	70	Valerianic, Merck's.....oz	20
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15	ACONITINE. Amorphous, Merck's.....dr	1 40
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34	Cryst., Merck's.....dr	1 40
Hydrocyanic, 1-oz vials, U.S.P., M.C.W...oz	10	ADAPES LANAE. B. P. lb	35
Hydriodic (Sp. gr. 1.50), Merck's.....oz	42	AGARIC. White.....lb	65
Hydriodic (Sp. gr. 1.70), Merck's.....oz	52	ALBOLINE.....lb	50
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39	5-lbs.....lb	45
Hydrocyanic, U. S. P., Scheeles's.....oz	35	Liquid.....lb	50
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30	Liquid, 5-lbs.....lb	45
Hydrofluoric, ½s, g. p. bots. incl. " ..lb	1 80	AGURIN.....oz	1 70
Hydrofluoric, ¼s, g. p. bots. incl. " ..lb	2 25	ALBUMEN. Egg.....lb	1 00
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37	ALCOHOL. Absolute.....qt	1 50
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24	95%, 10-gal. case.....gal	2 85
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19	95%, 5-gal. case.....gal	2 90
Lactic, conc., 1-oz vials, M. C. W.....oz	12	Wood, 10-gal. case.....gal	1 03
Lactic, conc., 1s, Merck's.....lb	79	Wood, 5-gal. case.....gal	1 03
Lactic, dilute, 1-oz vials, M. C. W.....oz	8	Wood, Columbian Spirits, 5 gal. in case.gal	1 40
Muriatic, carboys.....lb	4-4¼	Wood, Columbian Spirits, barrels.....gal	1 25

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

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Wood, Columbian Spirits, ½ barrels gal	1 30	ANODYNE. Hoffman's, 1-lb bottle.....lb	75
Cologne Spirits, 5 cents advance over price of Alcohol.		ANTHRASOL	60
ALDEHYDE. Conct., Merck's	25	ANTIFEBRIN. Merck's	17
ALLSPICE. lb	15	ANTI-KAMNIA and its combinations.....oz	1 00
Powdered	20	10-oz lots for \$9.25; 25-oz for \$22.80	
ALMOND MEAL	30-35	Tablets, Vest Pocket	1 75
ALMONDS. Bitter, shelled	40	Tablets, Vest Pocket, 1 gross, 5% off.	
Sweet, shelled	35	ANTIMONY. Black, powdered, pure.....lb	15
ALOIN. 1-oz vials	11	Black, powdered, commercial	10
ALUM. Ammonio-Ferric, M. C. W. lb	34	Chloride, cryst., 1-oz vials.....oz	22
Chrome	21	Chloride, sol. (Butter of)	39
Burnt	15	Oxysulphuret (Kermes Mineral)	1 00
Ground	7-9	Potassium Tartrate, powdered	42
Lump	4-7	Sulphuret, precipitated	92
Powdered	6-8	ANTINOSINE	2 10
ALUMINUM. Aceto-Tartrate, M. C. W...oz	20	ANTIPYRIN. Knorr's	35
Bromide, M. C. W.....oz	29	New	25
Chloride, M. C. W.....lb	79	APIOL. Fluid Green, Merck's.....oz	37
Chloride, M. C. W.....oz	14	APOLSYIN. S. & G. oz	65
Hydrated, pure, M. C. W.....lb	79	APOMORPHINE. Hydrochlor. A m o r.,	
Metallic, M. C. W.....oz	17	Merck's	3 50
Sulphate, pure, M. C. W.....lb	25-29	Mur. cryst. oz	7 50
Sulphate, H. P., Merck's	59	Muriate, Amorphous, ⅛-oz vials, M.C.W. oz	2 80
ALUMNOL	60	ARISTOL	1 80
AMIDOL. 1-oz. can	65	ARGOLS. Red	15
AMMONIA. Spirits of	75	Red, powdered	20
Spirits of, aromatic	75	ARGYROL	1 50
Aqua, 26 deg., 1-lb bot.....lb	30	ARROWROOT. St. Vincent.....lb	18-20
Aqua, 26 deg., 4-lb bot.....lb	16	Taylor's Bermuda, ¼s and ½s.....lb	35
Aqua, 26 deg., 5-gal. can	10	Taylor's Bermuda, bulk	35
Aqua, 26 deg., carboy 200.....lb	9	ARSENIC. Bromide, 1-oz vials, M. C. W..oz	27
Aqua, Washing, 5-gal. can.....gal	50	Chloride, sol., M. C. W.....oz	10
AMMONIUM. Acetate, cryst., M. C. W...oz	14	Iodide, 1-oz vials, M. C. W.....oz	44
Arsenate, 1-oz vials, M. C. W.....oz	22	Metallic	45
Benzoate, 1-oz vials, M. C. W.....oz	14	Red, powdered	15
Benzoate, M. C. W. lb	1 14	Solution (Donovan's)	40
Bichromate, 1-oz vials, M. C. W.....oz	14	Solution (Fowler's)	30
Bromide, 1-oz vials, M. C. W.....oz	10	Sulphured, red powdered	33
Bromide, M. C. W. lb	44	Sulphured, yellow powdered	33
Carbonate	14-18	White, lump	30
Carbonate, powdered	20	White, powdered, commercial.....lb	18
Carbonate, C. P., Squibb's, 1-500 gram....	45	Yellow (orpiment)	35
Citrate, 1-oz. vials, M. C. W.....oz	16	ASBESTOS. Fibrous, gro.....lb	20
Hypophosphite, 1-oz vials, M. C. W.....oz	21	ASPARAGIN. ⅛-oz vials	1 50
Hypophosphite, M. C. W. lb	1 80	ASPIRIN	43
Iodide, 1-oz. vials, M. C. W.....oz	38	ATROPIA. Pure, ⅛-oz vials, Merck's....oz	6 70
Muriate, lump	13-15	Sulphate, ⅛-oz vials, Merck's	5 65
Muriate, gran. lb	10-12	BALSAM. Copaiba, 8-lb can.....lb	55
Muriate, gran., pure, 1-lb cartons.....lb	20	Copaiba, 5-lb bottle	60
Muriate, powdered, pure.....lb	19	Copaiba, 1-lb bottle	65
Muriate, Po.....lb	19	Copaiba, solidified	1 25
Muriate, Po., Squibb's	35	Fir, Canada	65-70
Nitrate, H. P., Merck's	44	Fir, Oregon	35
Nitrate, cryst., refined	37	Gurgun	40
Oxalate, H. P., Merck's.....lb	85	Peru	1 80-2 00
Phosphate	84	Sulphur	60
Salicylate, Merck's	1 10	Tolu	75
Salicylate, Merck's	13	BARIUM. Acetate, 1-oz vials, M. C. W...oz	16
Succinate	59	Carbonate, M. C. W.....lb	37
Sulphate, com'l	12	Carbonate, precip., Merck's	30
Sulphate, C. P., Merck's	29	Chloride, chemically pure, M. C. W.....lb	38
Sulpho Cyanate, pure	10	Chloride, H. P., cryst., Merck's.....lb	38
Valerianate, cryst., 1-oz vials.....oz	19	Nitrate, M. C. W. lb	23
Valerianate, cryst. lb	1 59	Nitrate, H. P., cryst., Merck's.....lb	37
AMMONOL	1 05	Sulphide, commercial, Merck's.....lb	43
AMYL. Acetate	69	Sulphide, pure, Merck's	53
Butyrate, M. C. W. oz	30	Sulphate, M. C. W. lb	13
Nitrite, Merck's	29	BARK. Alder, black, pressed, 1-lb.....lb	22
Valerianate, M. C. W. lb	2 59	Alder, red or tag, pressed, 1-lb.....lb	24
ANNATTO. Roll	60	Angostura	30
		Ash, black, pressed, 1-lb.....lb	20
		Ash, mountain, pressed, 1-lb.....lb	24

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Ash, white, pressed, 1-lb.....lb	20	Tonka, Angostura lb	1 25
Barberry, pressed, 1-lb.....lb	30	Vanilla, short, true Mexican.....lb	10 00
Barberry, powdered lb	35	Vanilla, long, true Mexican.....lb	13 00
Bayberry, pressed, 1-lb.....lb	18	Vanilla, Tahita lb	1 10-1 25
Bayberry, powdered lb	25	BEBEERINE. Pure, 1-oz vials oz	2 04
Birch, pressed, 1-lb.....lb	24	Sulphate, 1-oz vials oz	1 49
Black Haw, powdered lb	35	BENZOLE. Pure lb	35
Black Haw, pressed, 1-lb.....lb	30	H. P., Merck's lb	37
Black Willow, pressed, 1-lb.....lb	19	BENZIN. Gallon gal	30
Blackberry lb	15	5 and 10 gallons gal	25
Buckhorn, pressed, 1-lb.....lb	19	Pints doz	1 60
Butternut, pressed, 1-lb.....lb	16	BERBERINE. Hydrochloride, Merck's....oz	1 74
Calisaya, yellow, commercial lb	25	Sulphate, Merck's oz	1 74
Causaya, yellow, commercial, powd.....lb	25	BERRIES. Buckthorn lb	30
Calisaya, East India lb	40	Coccius Indicus lb	15
Calisaya, powdered lb	40	Cubeb, stemless lb	25
Canella lb	30	Cubeb, powdered lb	30
Canella, powdered lb	35	Elder lb	30
Cascara, Sagrada lb	20	Juniper, Italian lb	10
Cascara, Sagrada, powdered lb	25	Poke lb	25
Cascarilla lb	25	Prickly Ash lb	90
Cascarilla, powdered lb	30	Sumac lb	25
Cassia lb	18	Sumac, powdered lb	30
Cassia, powdered lb	25	BETOL lb	60
Cinchona, red lb	40	BISMUTH. Acetate, M. C. W. oz	34
Cinchona, red, powdered lb	40	Citrate, M. C. W. lb	2 64
Cinnamon, Ceylon lb	35	Citrate, M. C. W. oz	24
Cinnamon, Ceylon, powdered lb	35	Citrate and Ammonia, M. C. W.....oz	24
Cotton Root, powdered lb	60	Citrate and Ammonia, M. C. W.....lb	2 64
Cotton Root, pressed, 1-lb.....lb	60	Lactate oz	42
Cramp, powdered lb	25	Metallic lb	2 25
Cramp, pressed, 1-lb.....lb	19	Nitrate, M. C. W. oz	23
Cundurango lb	45	Oxide, Hydrated, M. C. W.....lb	3 33
Cundurango, powdered lb	50	Oxide, Hydrated, M. C. W.....oz	32
Dogwood, pressed, 1-lb.....lb	20	Oxychloride, M. C. W.....lb	2 42
Dogwood, powdered lb	25	Salicylate, 40%, Merck's.....oz	24
Elder, pressed, 1-lb.....lb	35	Salicylate, 64% Basic, Merck's.....oz	23
Elm, select, slabs lb	35	Salicylate, 64%, M. C. W.....lb	2 74
Elm, ground, bulk lb	30	Subbenzoate oz	29
Elm, powdered lb	30	Subcarbonate lb	2 42
Elm, powdered, 1/4s.....lb	30	Subgallate, Merck's oz	26
Elm, powdered, 1/8s.....lb	35	Subiodide, M. C. W. lb	4 59
Elm, powdered, ozs.....lb	40	Subiodide, 1-oz vials, M. C. W.....oz	36
Hemlock, pressed, 1-lb.....lb	15	Subnitrate, M. C. W.....lb	2 18
Hemlock, powdered lb	20	Tannic, 1-oz vials, M. C. W.....oz	25
Jamaica Dogwood, pressed, 1-lb.....lb	35	Valerianate, 1/8s.....oz	60
Jamaica Dogwood, powdered, 1-lb.....lb	35	BLUE MASS lb	60
Mezereon, pressed, 1-lb.....lb	28	Powdered lb	62
Oak, red, pressed, 1-lb.....lb	15	BLUE VITRIOL. Barrels, 7 1/4.....lb	8-10
Oak, white, powdered lb	20	Powdered lb	18
Oak, white, pressed, 1-lb.....lb	15	BOLE. Armenian lb	18
Poplar, white, powdered, 1-lb.....lb	20	BONE ASH lb	6-8
Poplar, white, pressed, 1-lb.....lb	15	BORAX. C. P., Squibb's lb	33
Poplar, yellow, pressed, 1-lb.....lb	18	Pacific Coast Borax Co., 1-lb.....doz	1 14
Prickly Ash, powdered lb	40	Pacific Coast Borax Co., 3/4-lb.....doz	90
Prickly Ash, pressed, 1-lb.....lb	33	Pacific Coast Borax Co., 1/4-lb.....doz	48
Quebracho lb	35	Powdered lb	10-12
Sassafras lb	22-25	Pure Granular lb	25
Sassafras, powdered lb	25	Refined lb	10-12
Simaruba lb	50	BOROFORMOL. Pints doz	7 50
Soap Tree lb	9-10	BOROGLYCERIDE Solution lb	50
Soap Tree, ground lb	16	BOROTHYME. 4-oz cans doz	9 00
Soap Tree, powdered lb	25	BROMINE lb	83
Sumac, pressed, 1-lb.....lb	21	Chloride, solution oz	60
Tamarac, pressed, 1-lb.....lb	16	BRUCINE. 1/8-oz vials, M. C. W.....oz	1 75
Wahoo Root, pressed, 1-lb.....lb	33	Merck's oz	1 75
Wild Cherry lb	14-16	Phosphate, Merck's oz	1 75
Wild Cherry, ground lb	15-18	Sulphate, Merck's, 1/8-oz vials.....oz	1 75
Wild Cherry, powdered lb	20	BUDS. Balm of Gilead lb	60
BAY RUM. Domestic gal	2 25	Cassia lb	40
Imported gal	3 00	BUTTER CACAO. Ghirardelli lb	48
BEANS. Calabar lb	50	German lb	50

CADMIUM. Bromide, M. C. W.....oz	20	French, powdered lb	5-8
Iodide, M. C. W., 1-oz vials.....oz	33	Precipitated, English lb	10-12
Sulphate, M. C. W., 1-oz vials.....oz	24	Prepared in drops, bulk lb	7-8
CAFFEIN. Bromide, 1-oz vials.....oz	31	Prepared in drops, 5-lb boxes.....lb	8-10
1/8-oz vials oz	51	Prepared pink, 8-lb boxes.....lb	10
Citrated, Merck's oz	23	White, in lumps lb	3-4
Pure, Merck's oz	29	CHARCOAL. Animal lb	8-10
Sulphate, 1/8-oz vials, Mallinckrodt's.....oz	55	Willow, powdered lb	15-20
Salicylate, true salt, 1/8s, Mallinckrodt's..oz	55	CHINA CLAY lb	10
CALAMINE lb	18	CHINESE SHAVINGS lb	60
CALCIUM. Bromide, 1-oz vials, M. C. W..oz	12	CHINOIDINE. 1-oz rolls oz	12
Bromide, M. C. W.....lb	64	CHLORAL HYDRATE, CROTON, 1-oz vial	
Chloride, fused, M. C. W.....lb	64	incl. oz	35
Chloride, granular, M. C. W.....lb	30	Crystals, Merck's lb	1 35
Glycerylphosphate oz	22	Crystals, Merck's, 1/2s.....lb	1 45
Hypophosphite, 1-oz vials oz	12	Crystals, Merck's, 1/4s.....lb	1 55
Hypophosphite lb	72	Crystals, Merck's, oz.....lb	2 10
Hypophosphite and Sodium, 1-oz vials....oz	16	Crystals, M. C. W., 1s.....lb	1 35
Hypophosphite and Sodium, M. C. W...lb	1 09	Crystals, M. C. W., 1/2s.....lb	1 45
Iodide, 1-oz vials, M. C. W.....oz	37	Crystals, M. C. W., 1/4-lb cartons.....lb	1 50
Lactophosphate, soluble lb	1 27	Crystals, M. C. W., ozs.....lb	2 10
Lactophosphate, soluble oz	17	Crystals, 1-lb g. s. b. incl., Schering....lb	1 35
Phosphate, precipitated, 1-lb cart.....lb	20	Crystals, 1/2-lb g. s. b. incl., Schering....lb	1 45
Phosphide, 1-oz vials oz	50	Crystals, 1/4-lb g. s. b. incl., Schering....lb	1 55
Sulphate, pure lb	49	Crystals, 1-oz g. s. vls. incl., Schering....oz	17
Sulphide, 1-oz vials oz	10	CHLORALAMID 25 gramme	80
Sulphide lb	37	CHLOROFORM. 1-lb tin.....lb	52
Sulphite lb	84	In 7-lb bottle.....lb	42
Sulpho, carbolate, M. C. W.....oz	11	Squibb's, 1-500 gramme lb	1 00
CALOMEL. Bulk lb	95	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	25
English, Howard's lb	1 35	Bisulphate, M. C. W. oz	18
CAMPHOR. Monobromated, Mal'rodt's...oz	27	Muriate, M. C. W.....oz	17
Tar flake lb	4 1/2-7	Sulphate, 1-oz vials, M. C. W.....oz	17
Tar balls lb	4 1/2-7	CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	50
CANDY. Coltsfoot Rock lb	30	Bisulphate, 1-oz vials, M. C. W.....oz	30
Horehound lb	10	Muriate, M. C. W. oz	32
Rock, on strings lb	15	Salicylate, 1-oz vials, M. C. W.....oz	34
Rock, brown lb	16	Sulphate, 1-oz vials, M. C. W.....oz	30
Rock, red lb	15	Sulphate, 5-oz cans, M. C. W.....oz	25
Rock, white lb	14	CLOVES. Zanzibar lb	25
CANTHARIDES. Russian, powdered....lb	1 50	Zanzibar, powdered lb	30
Chinese, powdered lb	1 10	COBALT lb	25
CAPSICUM. African, pods oz	25	Cobalt, powdered lb	30
African, powdered oz	30	COCAINE. Alk., 1-oz vials, incl.....oz	5 05
Bombay oz	20	Hydrochloride, Merck's oz	3 05
CARAMEL gal, \$1.25 lb	35	Hydrochloride Cryst., 1-oz v'ls, M.C.W...oz	3 05
CARBON. Bisulphide lb	17	Hydrochloride Cryst., 1/2-oz v'ls, M.C.W...oz	3 10
Bisulphide, 50-lb cans can	4 50	Hydrochloride Cryst., 1/4-oz v'ls, M.C.W...oz	3 15
Bisulphide, Wheeler's, 5-lb can.....ea	4 50	Hydrochloride Cryst., 1/8-oz v'ls, M.C.W...oz	3 25
Bisulphide, 1-gal cans gal	1 10	COCHINEAL. Honduras lb	50
Bisulphide, quart bottles doz	4 00	Honduras, powdered lb	55
Bisulphide, Purif., Merck's.....lb	49	CODEINE. Merck's Pure oz	4 50
CARMINE. No. 40 oz	45	Muriate 1-oz, \$3.95 1/8s	4 40
No. 40 lb	5 00	Phosphate, 1/8-oz vials oz	3 90
CASSIA FISTULA lb	20	Sulphate, M. C. W.....oz	4 25
CASTOR FIBER oz	1 75	COLLODION lb	90
Castor Fiber, powdered oz	1 75	1-oz vials doz	1 25
CERATE. Cantharides lb	1 00	Cantharidal lb	2 35
Goulard's, U. S. P. lb	70	Cantharidal, 1-oz vials doz	2 20
Resin, U. S. P. lb	50	Flexible lb	1 00
Savin lb	60	Flexible, 1-oz vials doz	1 50
Simple lb	50	COLCHICINE. cryst., Merck's, 15-grain...gr	14
Spermaceti lb	70	C. P., Amorph., 15-grain vials.....gr	30
Turner's lb	60	COLOCYNTH. Apples, Trieste.....lb	60-65
Zinc, Carbonate, true lb	60	Apples, powdered lb	75
Zinc, Oxide lb	60	COMPOSITION POWDER, 2-oz papers..lb	35
Full line of all makes U. S. P. and Proprietary.		CONFECTION. Aromatic lb	1 00
CERIUM. Oxalate, Merck's oz	09	Opium lb	1 50
Oxalate, 1-lb cartons lb	47	Rose, U. S. P. lb	65
CHALK. Crayons, white lb	15	Senna, U. S. P. lb	70
French, cut lb	18-20	Theriac lb	1 25

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COPPER. Acetate, cryst., C.P., M.C.W.....lb	74	Chloric, concent., M. C. W., 1-lb bot....lb	74
Acetate, com'l, lump	40	Formic, 1-lb bot.	1 59
Acetate, Po. Verdigris	45	Hydrobromic, 1-oz bot. oz	20
Ammoniated	59	Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 20
Arsenite, 1-oz vials, M. C. W. oz	19	Nitrous, conc., M. C. W., ½-lb bot.....lb	1 10
Arsenite, 1-oz vials	19	Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00
Bromide	32	Nitrous Spirit, 4-lb bot.....	50
Iodide, M. C. W. oz	44	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	81
Nitrate	54	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	78
Sulphate, C. P., granulated, 1-lb boxes...lb	22	Sulphuric, conc., 1-lb can.....lb	87
Sulphate, Caustic Pencils, Merck's.....doz	1 75	Sulphuric, conc., 3-lb can.....lb	84
Sulphate, purified, 1-lb cartons.....lb	21	Sulphuric, washed, 1-lb bot.....lb	87
COPPERAS. bbls 1¼.....lb	3-4	Sulphuric, Squibb's, in 1-500 gm cans....ea	1 35
CORROSIVE SUBLIMATE	92	Sulphuric, Squibb's, in 1-250 gm cans....ea	70
Powdered	92	Sulphuric, Squibb's, in 1-100 gm cans....ea	33
COTOIN. Para, Merck's, ⅛-oz.....oz	14 00	Valerianic. oz	39
COTTON. Gun	18	ETHYL. Bromide, Merck's. oz	20
COWHAGE. 1-oz cans	55	Chloride, 10 gramme tubes Bengue.....doz	5 00
CREAM TARTAR, pure, powdered	36-39	Chloride, 30 gramme tubes Bengue.....doz	10 00
Pure, powdered, 25-lb box.....lb	32	Chloride, Merck's, 10 gramme.....ea	40
CREOLIN. ½-lb.....doz	4 00	Iodide (see Hydriodic Ether), Merck's..oz	54
1-lb	8 00	EUCALYPTOL. Merck's. oz	16
CREOSOTE. Beechwood, Merck's	94	EUCAINE. A or B, ⅛s.....oz	3 60
Merck's, ½-lb	92	EUDOXINE. oz	2 10
Merck's, ¼-lb	91	Tablets, 3-gr. oz	2 60
CREOSOTE CARBONATE	65	Tablets, 5-gr. oz	2 50
In ¼-lb	9 25	Tablets, 1-3 gr, ¼-oz bots.....oz	3 00
In ½-lb	9 15	EUKATROL, powd.....oz	1 00
In 1-lb	9 10	Tablets	1 00
CROCUS MARTIS	16	EUROPHEN. oz	1 80
CUDBEAR	30	EXALGINE. oz	1 50
CUMARIN	45	EXTRACT. Licorice, Corigliano. lb	45
CUMENE (Cumol), Merck's	1 10	Licorice, Mellor & Rittenhouse.....lb	27-30
CURCUMA. Powdered	16	Licorice, M. & R., 25 and 50-lb box....lb	26
CUTTLEFISH	35	Licorice, soft, perf., clearly soluble.....lb	75-1 00
Jeweler's	85	Licorice, Y. & S.....lb	27-30
Powdered	30	Licorice, powd. lb	35
DATURINE. Alk., cryst., 5-gr, Merck....ea.	75	Logwood, bulk. lb	12
DEXTRIN	10-12	Logwood, ¼s. lb	18
DIASTASE. of Malt	1 14	Logwood, ½s. lb	16
DIGALEN. ½-oz bottles	1 00	Logwood, 1s. lb	15
DIGITALIN. ⅛-oz vials, Merck's.....oz	5 75	Male Fern, U. S. P., Merck's.....lb	2 25
DIONIN. ⅛s, Merck's	6 25	Malt, dry, Merck's. lb	1 25
15-gr vials, Merck's. ea	35	Opium, Aqueous, dry, Merck's.....oz	1 04
DOVER'S POWDER, U. S. P.....lb	1 25	Witch Hazel. gal	1 10
DRAGON'S BLOOD, Mass.....lb	40	Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05
Powdered. lb	65	Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00
Reed's. lb	90	FAREOL. oz	50
DIURETIN. oz	1 80	FENETOLE	2 00
DUBOISINE, Sulphate, Merck's, 10-gr vial..	1 10	FERRATIN. Powder or tablets.....oz	90
EARTH, Fuller's, powdered. lb	8-10	FLAKE WHITE. English. lb	15
EIKONOGEN, lb, \$3.95; ½s, \$4.20.....oz	37	FLOUR. Gluten. lb	15
¼s. lb	4 80	Rice. lb	12
ELATERIN, Merck's, 15-gr vial.....	1 25	FLOWERS. Althea. lb	40
ELATERIUM, ⅛-oz vials. oz	3 00	Arnica. lb	18-20
EMERY. Flour	8	Arnica, powd. lb	23-25
Grain.....lb	8	Calendula, new. lb	50
EMETIN (Resinoid), Merck's. oz	7 53	Chamomile, German, new. lb	30
(Alkaloid), pure, Merck's, 15-gr vial.....	1 25	Chamomile, Roman. lb	40
ERGOT. Spanish. lb	65	Elder	25
Spanish, powd.....lb	65	Elder, pressed. oz	25
ERGOTIN. Ergotin-Bonjean, Merck's.....oz	39	Kooso. lb	75
ERGOTOLE. S. & D.....doz	4 50	Kooso, powd. lb	80
ESERINE (Physostigmine), 5 gr Alkaloid,		Lavender. lb	25
Merck's	13	Mullein. lb	90
Sulphate, 5-gr vials, Merck's.....ea	50	Orange.....lb	1 10
Sulphate, 10-gr vials, Merck's.....ea	1 00	Poppy, red. lb	75
Sulphate, 15-gr vials, Merck's.....ea	1 50	Rose, red. lb	1 20
ETHER. Acetic, M. C. W., 1-lb bot.....lb	59	Rosemary. lb	35
Benzoic, 1-oz bot. oz	34	FLOUR SPAR. Powdered.....lb	25
Butyric, 1-lb bot. lb	1 14	FORMALDEHYDE. Merck's. lb	32
Chloric, U. S. P., M. C. W., 1-lb bot....lb	64	1-lb bot	35

FORMALIN. S. & G.....lb	50	Mastic tears. lb	85
FORMIN. Merck's. oz	21	Myrrh, Turkey. lb	35
GADUOL. Merck's. oz	37	Myrrh, Turkey, powd.....lb	40
GAMBIER. lb	15	Ollbanum tears. lb	30
GARANTOSE. 550 times sweeter than sugar.		Opium. lb	4 80
1-lb cans, Merck's.....lb	2 25	Opium, powd. lb	5 80
1-oz cans, Merck's.....oz	20	Sandarac. lb	45
GELATIN. Cooper's, 12-lb case.....lb	85	Scammony, Aleppo. oz	40
Coxe's. doz	1 50	Scammony, Virgin, true.....oz	75
French Pink. lb	75	Shellac, bleached. lb	67
French Gold Label.....lb	60	Shellac, orange. lb	56-60
French Silver Label.....lb	40	Shellac, ground. lb	65
GLASS. Powdered. lb	8	Spruce.....lb	1 50
Soluble. lb	25	Tamarac, true. lb	1 25
GLUCOSE. 1-lb bot.....lb	20	Thus. lb	12
GLUE. Common. lb	10-12	Tragacanth, ribbon. lb	90
White, No. 1.....lb	16-18	Tragacanth, powd. lb	90
GLUTOL. oz	85	GUTTA PERCHA. Crude, shavings.....lb	1 75
GLYCERINE. Price's. lb	75	Crude, sheets. lb	1 75
Pure, in 10-lb cans.....lb	19½	HEDONAL. oz	1 40
Pure, in 50-lb cans.....lb	17	HEMICRANIN oz	90
GLYCEROPHOSPHATES. Iron, Merck's..oz	32	HEMOGALLOL. Merck's. oz	80
Lime, Merck's. oz	22	Tablets, Merck's. 100	80
Potash, Merck's	29	HEROIN. 1-oz. oz	4 85
Soda, Merck's. oz	28	1-oz, ½-oz vials.....oz	5 00
GLYCYRRHIZIN. Ammoniated, Merck's..oz	29	¼-oz. oz	5 15
Ammoniated, Merck's. lb	3 10	¼-oz, 15-gr vials.....ea	23
GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70	Hydrochloride, oz vials.....oz	4 85
Chloride, 15-gr vials, M.C.W.....doz	5 00	½-oz. oz	5 00
Mono-bromide, Merck's, 15-gr vials.....ea	1 25	½-oz, ¼-oz vials.....oz	5 15
Tri-bromide, Merck's, 15-gr vials.....ea	1 00	15-gr vials. ea	23
Tri-cyanide, Merck's, 15-gr vials.....ea	2 00	HEXAMINE oz	30
GOOSE GREASE. lb	60	Tablets. oz	40
GRAINS. Paradise. lb	40	HIERA PICRA. lb	50
Powdered. lb	45	HOFFMAN'S ANODYNE.....lb	75
GUAIACOL. Carb. oz	1 50	HOMATROPINE, Alk'l'd, 5-gr vials, Merck's.ea	2 23
Merck's. oz	22	HOMATROPINE, Alk., 5-gr v'ls, Merck..ea	2 25
GUARANA. Powd. lb	1 00-1 10	Hydrobromate, 5-gr vials, Merck's.....ea	1 75
GUM. Aloes, Barbadoes lb	25	Hydrochlorate, 5-gr vials, Merck's.....ea	2 10
Aloes, Barbadoes, powd.....lb	30	HOMOGLOBIN, powd., Merck's.....oz	1 04
Aloes, Cape. lb	20	HOPS, new, bulk.....lb	30
Aloes, Cape, powd.....lb	20-25	New, ozs. lb	50
Aloes, Socotrine lb	40	New, ¼s, ½s. lb	35
Aloes, Socotrine, powd.....lb	40	HYDROCHINON, Merck's. oz	16
Ammoniac tears. lb	40	Merck's. lb	1 42
Arabic, Turkey, first pick.....lb	65	HYDROGEN PEROXIDE, Drevet's U.S.P.,	
Arabic, Turkey, second pick.....lb	50	1-lb bots. doz	3 60
Arabic, Turkey, sifted sorts.....lb	35	Drevet's U.S.P., ½-lb bots.....doz	2 10
Arabic, first pick, granulated.....lb	70	Drevet's U.S.P., ¼-lb bots.....doz	1 35
Arabic, first pick, powd.....lb	60-65	Marchand's, 1-lb bots.....doz	8 00
Asafoetida, Calcutta. lb	40	Marchand's, ½-lb bots.....doz	5 25
Asafoetida, powd. lb	45	Marchand's, ¼-lb bots.....doz	3 80
Asphaltum. lb	15	Marchand's, ⅛-lb bots.....doz	2 25
Benzoin, marble, select. lb	50	Mallinckrodt's, 1-lb bots.....doz	3 60
Benzoin, powd. lb	60	Mallinckrodt's, ½-lb bots.....doz	2 10
Camphor, Japanese, 1-oz blocks, 1-lb box..lb	1 28	Mallinckrodt's, ¼-lb bots.....doz	1 35
Camphor, bulk. lb	1 25	Oakland, 1-lb bots.....doz	6 50
Camphor in slabs, 12-lb boxes.....lb	1 20	Oakland, ½-lb bots.....doz	4 00
Camphor, boxes 24 to lb.....lb	1 32	Oakland, ¼-lb bots.....doz	2 25
Camphor, powd. lb	1 50	Oakland, 5-lb bots.....ea	1 59
Catechu, refined. lb	18	HYDRO NAPHTHOL. oz	75
Catechu, powd. lb	30	HYDRASTINE, Alkaloid, Merck's.....oz	10 04
Copal lb	35	Hydrochloride, Merck's. oz	10 04
Damar.....lb	35	HYDRASTININE, Hydrochloride, Merck's,	
Galbanum. lb	1 00	15-gr vials. ea	60
Gamboge. lb	1 50	HYDROQUINONE, Merck's. oz	18
Gamboge, powd. lb	1 50	HYOSCINE, Amorphous, Merck's, 15-gr	
Guaiac. lb	35	vials. ea	2 00
Guaiac, powd. lb	40	Hydrobromate, 5-gr vials, Merck's.....ea	2 00
Kino, true. lb	75	Hydriodide, 5-gr vials, Merck's.....ea	2 00
Kino, true, powd.....lb	80	Sulphate, 5-gr vials, Merck's.....ea	2 00

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HYOSCYAMINE, Alkaloid, crys., Merck's, 15-gr vials. ea	4 75	Sulphate, pure, cryst., M. C. W.....lb	20
Amorphous, Merck's. gr	25	Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13
Hydrobromate, Amorph., Merck's, 15-gr..ea	3 00	Tannate, 1-oz vials, M. C. W.....oz	22
Sulphate, crys., Merck's, 15-gr.....ea	3 03	Tartrate and Ammonia, M. C. W.....oz	11
Sulphate, Amorph., 5-gr vials, Merck's....ea	1 25	Tartrate and Ammonia, M. C. W.....lb	72
IATROL. oz	95	Tartrate and Potassium, M. C. W.....oz	10
ICHTHARGAN, Merck's. oz	3 00	Tartrate and Potassium, scale, M. C. W...lb	58
ICHTHOFORM, Merck's. oz	1 00	Tersulphate, sol., U. S. P.....lb	28
ICHTHYOL, 1-oz vials, Merck's.....oz	32	Valerianate. oz	19
1/4s, Merck's. oz	4 25	IODOTHYRINE. oz	3 40
1/2s, Merck's. oz	4 10	ISINGLASS, American. lb	1 25
1s, Merck's. oz	4 00	Russian. lb	5 25
INDIGO, Manila, extra.....lb	75	KAMALA. lb	65
IODIPIN (10% Iodized Sesame oil), Merck's. oz	28	Powd. lb	75
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47	KAOLIN.	18
Chloride, 1-oz vials, M.C.W.....oz	52	KERATIN (Pepsinized), Merck's, 1/8s.....oz	3 53
Resublimed, 1-oz vials, M. C. W.....oz	35	KOUSSO. lb	75
Resublimed, M. C. W.....lb	3 53	Powd.....lb	75
Burnham's, soluble. oz	1 00	KRYOFINE. oz	1 00
IODOFORM, bulk, M. C. W.....lb	3 75	LACTUCARIUM, Merck's. oz	54
Cryst. or powd., Merck's.....oz	34	LACTOPHEPIN. oz	1 00
Deodorized. oz	54	LANOLIN. lb	80
IODOL. oz	1 25	Lanae Adeps, 1-lb cans, B. J. D.....lb	35
IRON, Acetate, dry, 1-oz vials, M.C.W....oz	24	Lanae, British. lb	35
Acetate, liquor. lb	44	LANUM (Adeps Lanae Hydrosus), Merck's.lb	40
Albuminate. oz	20	LARD, Benzoated, 5-lb cans.....lb	28
Ammoniated, M. C. W.....lb	44	LARGIN, Merck's oz	1 75
And Ammonium Cit., Merck's.....lb	79	LEAD, Acetate, med. crys. or gran., Merck's. lb	33
Arseniate, 1-oz vials. oz	18	Acetate, white. lb	18
By Hydrogen, Merck's.....lb	58	Acetate, white, powd.....lb	25
Carbonate, precipitated. lb	18	Acetate, purified, gran., 1-lb cart., M.C.W.lb	33
Carbonate, proto. lb	42	Bromide. oz	24
Carbonate, saccharated. lb	45	Carbonate.....lb	10
Chloride, 1-oz vials.....oz	8	Chloride, 1-oz vials.....oz	11
Chloride, crystal. lb	34	Chromate, M. C. W.....lb	1 19
Chloride, sol. for tincture.....pt	25	Iodide, 1-oz vials, M. C. W.....oz	27
Citrate, soluble, 1-oz vials.....oz	11	Nitrate, 1-lb boxes, M. C. W.....lb	23
Citrate, soluble, M. C. W.....lb	80	Nitrate, chemically pure, M. C. W.....lb	40
Citrate and Quinine, sol., M.C.W.....lb	1 80	Oxide, chemically pure, M. C. W.....lb	84
Citrate and Quinine with Strych., M.C.W.lb	2 55	Oxide, Merck's. lb	84
Citrate and Quinine with Strych., M.C.W.oz	26	Subacetate, sol. lb	35
Citrate and Strychnine, 1-oz vials, M.C.W.oz	13	Sulphate, pure, M. C. W.....lb	63
Ferrocyanide, 1-oz vials, M. C. W.....oz	10	Tannate, 1-oz vials, M. C. W.....oz	24
Ferrocyanide, M. C. W.....lb	65	LEAVES, Aconite, German.....lb	30
Filings. lb	10	Aconite, powd. lb	30
Glycerino Phosphate. oz	32	Aconite, pressed. oz	25
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Angelica, pressed. oz	25
Iodide, 1-oz vials, M. C. W.....oz	36	Bay, bulk. lb	15
Lactate, 1-oz vials, M. C. W.....oz	10	Belladonna, English, bts.....lb	1 25
Lactophosphate, 1-oz vials, M. C. W.....oz	19	Belladonna. lb	30
Nitrate, sol., U. S. P., M. C. W.....lb	34	Belladonna, powd. lb	35
Oxide, black. lb	49	Belladonna, pressed. oz	35
Oxide, brown, com'l, Merck's.....lb	22	Blessed Thistle, pressed.....oz	34
Oxide, brown, pure, Merck's.....lb	74	Borage, pressed. oz	35
Peptonized, Merck's. oz	24	Buchu, long. lb	1 00
Phosphate, precipitate. lb	39	Buchu, short. lb	40
Phosphate, U. S. P., scales.....oz	11	Buchu, powd. lb	40
Phosphate, U. S. P., scales.....lb	65	Buckbean, pressed oz	30
Pyrophosphate, soluble, Merck's.....lb	77	Coca. lb	60
Pyrophosphate, U. S. P., 1880.....oz	11	Conium. lb	30
Pyrophosphate, U. S. P., 1880.....lb	65	Conium, powd. lb	35
Reduced (Quevenne's) lb	58	Conium, pressed. oz	30
Reduced (Quevenne's) oz	10	Coltsfoot, pressed. oz	25
Salicylate, 1-oz vials, M. C. W.....oz	15	Damiana. lb	40
Subsulphate, M. C. W.....oz	6	Digitalis, pressed. oz	35
Subsulphate, M. C. W.....lb	36	Digitalis. lb	35
Subsulphate, sol., M. C. W.....lb	23	Digitalis, powd. lb	35
Succinate, Merck's. oz	39	Eucalyptus. lb	20
Sulphate, dried. lb	20	Grindelia Robusta lb	25
Sulphate, gran., pure.....lb	18	Grindelia Squarosa lb	40
		Hemlock, pressed. oz	30

Henna	lb	75	Iodide, M. C. W.....	oz	47
Henna, powd.	lb	75	Sulphite, Mallinckrodt's	lb	49
Henbane.	lb	30	MANGANESE, Black, Oxide	lb	8-10
Henbane, powd.	lb	30	Phosphate, M. C. W.....	oz	18
Henbane, pressed, oz.....	lb	30	Carbonate, 1-oz vials, M. C. W.....	oz	14
Jaborandi.	lb	35	Chloride, 1-oz vials, M. C. W.....	oz	14
Jaborandi, powd.	lb	40	Hypophosphite, 1-oz vials, M. C. W.....	oz	20
Laurel.	lb	25	Hypophosphite, Merck's.....	oz	20
Lovage, pressed, oz.....	lb	30	Iodide, 1-oz vials, M. C. W.....	oz	47
Lungwort, pressed, oz.....	lb	34	Peptonized, Merck's.	oz	29
Marjoram, sweet	lb	36	Phosphate, M. C. W.....	oz	18
Rosemary, bulk.	lb	20	Sulphate, 1-oz vials, M. C. W.....	oz	9
Rosemary, pressed, oz.....	lb	23	MANNA, Large flake	lb	90
Sage, oz.	lb	25	Small flake.	lb	60
Savin, pressed, oz.....	lb	25	MENTHOL, F. W. B.....	oz	29
Senna, Alexandria, garbeled.....	lb	30	Cryst., 1-oz. vials, Mallinckrodt's.....	oz	32
Senna, Alexandria, powd.....	lb	35	Crystallized, F. W. B.....	lb	3 35
Senna, Tinnevely, select.....	lb	25	MERCURY, Chloride, Merck's.....	lb	99
Stramonium, powd.	lb	30	Iodide, Green, Merck's	oz	24
Stramonium, pressed, oz.....	lb	24	Iodide, Red, Merck's.....	oz	26
Thyme, pressed, oz.....	lb	24	Iodide, Yellow, Merck's.....	oz	24
Uva, Ursi.	lb	15	Ammoniated, white precip.....	lb	1 20
Witch Hazel, pressed, oz.....	lb	23	Bisulphate	lb	72-95
LEECHES.	ea	10	Cyanide.	oz	28
2 dozen lots.....	ea	8	Iodide, green, 1-oz vials, M. C. W.....	oz	24
LEPTANDRIN.	oz	35	Iodide, red, 1-oz vials, M. C. W.....	oz	26
LIME, Chloride, 35-lb cans.....	lb	4 1/4	Iodide, yellow, 1-oz vials, M. C. W.....	oz	24
Chloride, in bbls of 350 lbs.....	lb	2 1/4	Nitrate, proto., 1-oz vials, M. C. W.....	oz	27
Chloride, lb cans.....	doz	1 00	Nitrate, solution, 1-oz vials.....	oz	27
Chloride, 1/2-lb cans.....	doz	65	Oxide, black, 1-oz vials.....	oz	18
Chloride, 1/4-lb cans.....	doz	45	Oxide, red (red precip.).....	lb	1 20
LITHARGE	lb	8-13	Oxide, yellow, 1-oz vials.....	oz	18
LITHIUM, Benzoate, 1-oz vials, M. C. W.....	oz	16	Salicylate, M. C. W.....	oz	27
Bromide, Merck's.	oz	16	Subsulphate, 1-oz vials.	oz	15
Bromide, 1-oz vials, M. C. W.....	oz	24	Subsulphate.	lb	1 06
Carbonate, Merck's.	oz	20	Sulphuret, black.	lb	78
Citrate, 1-oz vials, M. C. W.....	oz	18	White chalk, 1-lb cartons.....	lb	44
Citrate, cryst. or powd., Merck's.....	oz	18	METHYL, SALICYLATE	oz	69
Iodide, Merck's.	oz	38	METHYLENE, Blue Medicinal, Merck's.....	oz	60
Salicylate, 1-oz vials, M. C. W.....	oz	16	MORPHINE, Morphia, 2 1/2-oz box, Merck's.....	oz	3 15
LITMUS.	lb	50	Morphia, 1-oz bottles, Merck's.....	oz	3 20
Paper.	doz	50	Morphia, 5-oz can, Merck's.....	oz	2 90
LODESTONE	lb	35	Morphia, Sulph., 1/8s, oz bx, Merck's.....	oz	2 80
LONDON PURPLE.	lb	20	1/8s, 1-oz box, M. C. W.....	oz	3 30
LOSOPHAN.	oz	1 80	1/8s, 2 1/2-oz box, M. C. W.....	oz	3 25
LUPULIN, German.	lb	75	1-oz vials, M. C. W.....	oz	3 05
LYCOPodium.	lb	90	5-oz cans, M. C. W.....	oz	3 00
LYCETOL.	oz	4 25	In 10-oz lots, 10c oz less.		
LYSOL, 1-gal. jugs.....	gal	4 00	Morphia, Acetate, 1/8s, M. C. W.....	oz	3 30
Pints.	doz	8 00	Morphia, Muriate, 1/8s, M. C. W.....	oz	3 30
MACE.	lb	85	Morphia, Valerianate, 1/8s, M. C. W.....	oz	4 30
Powd.	lb	85	Other salts or Morphia subject to market		
MADDER, Dutch.	lb	15	price based on above.		
MAGNESIUM, Benzoate, Mallinckrodt's.....	oz	24	MOSS, Iceland.	lb	18
Bromide, Mallinckrodt's.	oz	25	Irish.	lb	15
Calcined, Jennings', 1-lb cans.....	lb	75	Irish, bleached.	lb	20
Calcined, M. & M.'s, 1-lb cans.....	lb	65	MUSK, Chinese.	oz	40
Calcined, K. & M.'s, heavy.....	lb	75	Tonquin, grain.	dr	3 00
Carbonate, Jennings', 2-oz.....	lb	35	MUSTARD, Colman's, 4-oz cans.....	doz	1 25
Carbonate, Jennings', 4-oz.....	lb	35	Colman's, 16-lb cans.....	lb	50
Carbonate, K. & M.'s, 1-oz.....	lb	25	Yellow, Imperial, 5-lb cans.....	lb	18
Carbonate, K. & M.'s, 2-oz.....	oz	20-22	NAPHTHALIN, Balls.....	lb	4 1/2-6
Carbonate, K. & M.'s, 4-oz.....	lb	18-20	Resublimated, Merck's.	lb	27
Carbonate, K. & M.'s, small sq.....	lb	60	Pure, 1-lb cartons, M. C. W.....	lb	27
Carbonate, powd., in 65-lb bbls.....	lb	10	NAPHTHOL, Alpha.	oz	30
Carbonate, powd., in 10-lb boxes.....	lb	16	Beta.	oz	10
Citrate, dry, English.....	lb	65	NICKEL, Bromide, Merck's.....	oz	32
Citrate, sol.	doz	1 75	Bromide, 1-oz vials, M. C. W.....	oz	32
Glycerinophosphate, Merck's.....	oz	44	Nickel and Ammonia Sulphate, M. C. W.....	lb	34
Hypophosphite, 1-oz vials, M. C. W.....	oz	20	Sulphate, 1-oz vials, M. C. W.....	oz	10
Hypophosphite, M. C. W.....	lb	1 69	Sulphate, Merck's.	oz	10
Hypophosphite, Merck's.	oz	20	NOSOPHEN.	doz	4 50

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NUTGALLS, Aleppo. lb	45	Juniper, wood. lb	75
Aleppo, ground. lb	50	Lard. gal	1 10
Aleppo, powd. lb	50	Laurel, expressed. lb	60
NUTMEGS, Macassar, large. lb	60	Lavender, Flowers. lb	2 40-2 65
Penang, powd. lb	65	Lavender, Garden. lb	80
NUTS, Areca lb	30	Lemon. lb	1 10
Areca, powd. lb	40	Lemon, Sanderson's. lb	1 35
Kola. lb	35	Lemon Grass. gal	4 00
Kola, powd. lb	40	Linseed, raw. case	66
NUX VOMICA. lb	45	Linseed, raw. gal	61
Powdered or rasped. lb	25	Linseed, boiled. case	68
OAKUM lb	15	Linseed, boiled. lb	63
Surgeon's. lb	20	Mace, expressed. oz	2 00
OIL, Almonds, Bitter, true, Merck's. lb	6 59	Male Fern, ethereal. lb	50
Almonds, Bitter, Allen's. oz	75	Myrbane. lb	40
Almonds, Sweet, Allen's. lb	65	Mullein. oz	45
Almond's, Sweet. lb	35-45	Musk, alcoholic. oz	1 00
Amber, rectified. lb	60	Mustard, essential. oz	60
Anise. lb	2 00-2 25	Mustard, expressed. gal	75
Bay Leaves, true. oz	40	Mustard, expressed. gal	75
Bay Leaves. lb	4 00-4 25	Neatsfoot, No. 1. oz	3 00
Benne. gal	1 20	Neroli, Petal. oz	3 75
Bergamot, Sanderson's. lb	2 80-3 00	Neroli, Bigarade. oz	50
Birch Tar, rectified. lb	1 25	Neroli, Petit Grain. oz	35
Cade. lb	40	Nutmegs, essential. gal	1 25
Cajuput (21-oz bottles). lb	1 10-1 35	Olive, pure, Malaga. gal	2 00
Calamus. oz	35	Olive, California. doz	3 75
Camphor, E. I. lb	40	Olive, small. gal	2 25
Caraway, seed. lb	2 00	Olive, 1/2-gals. doz	6 50
Cardamon. oz	2 50	Olive, large. gal	2 00-2 10
Cassia. lb	1 25 to 1 50	Olive, imported. lb	4 50
Castor, Baker's A. A. gal	1 15-1 25	Orange, bitter. lb	2 25-2 50
Castor, Marsh's. doz	1 10-1 20	Orange, sweet. lb	60
Castor, 2-oz bottles. doz	60	Origanum, pure. lb	1 85
Castor, 4-oz bottles. doz	1 00	Origanum, Chris. lb	25
Castor, 6-oz bottles. doz	1 40	Palm. oz	75
Castor, 8-oz bottles. doz	1 75	Patchouly. lb	2 20-2 45
Castor, 12-oz bottles. doz	2 25	Pennyroyal. oz	20
Castor, 16-oz bottles. doz	3 50	Pepper, black. lb	4 25-4 50
Cedar. lb	60-100	Peppermint, Hotchkiss. lb	3 75-4 00
Cedrat. oz	40	Peppermint, Wayne Co. lb	3 75-4 00
Celery. oz	1 40	Peppermint, Western. oz	30
Chamomile, German. oz	5 00	Pimento. lb	1 09
Chamomile, Roman. oz	1 50	Pinus, Sylvestris, German. lb	6 09
China, Nut. gal	80	Pinus Pumilio. oz	49
Cinnamon, Ceylon. oz	90	Pinus Pumilio. oz	35
Citronella, Winters, 22-oz bots. lb	65-90	Rhodium. oz	5 50
Cloves. lb	1 40-1 60	Rose, Kizanlik. lb	1 25-1 50
Cocanut. lb	25	Rosemary, flowers. oz	40
Codliver, White, Norwegian. gal	1 50	Rue. lb	5 50
Codliver, white, Norwegian, 5-gal cans. gal	1 45	Sandalwood, English. lb	3 00-3 20
Codliver, white, Newfoundland. gal	1 40	Sandalwood, German. lb	90-1 00
Cognac, green. oz	2 50	Sassafras. lb	1 25
Cologne. lb	50	Savin. lb	4 00
Copaiba. oz	1 25	Spearmint. gal	75-1 00
Coriander. oz	90	Sperm. lb	30
Cotton Seed (salad), 5-gal can. gal	65	Spike. lb	75
Cotton Seed (salad), 1-gal can. gal	85	Spruce. lb	3 00
Croton, 24-oz bots. lb	1 35-1 50	Tansy. lb	25
Croton. oz	20	Tar. lb	1 50
Cubebs. lb	1 60-1 70	Thyme, white. lb	55
Ergot, Keith's. oz	57	Turpentine, pure. oz	40
Erigeron, Keith's. oz	38	Wine, light. oz	50
Erigeron. lb	1 40	Wine, heavy. lb	2 25-2 50
Eucalyptus. lb	80	Wintergreen. lb	2 00-2 25
Fennel Seed. lb	2 00	Wormseed. lb	4 00
Fusil, purified. oz	80	Wormwood. oz	4 00
Geranium, Rose, Chris. oz	75	Ylang Ylang. lb	65
Hemlock. lb	55	OINTMENT, Basilicon. lb	65
Horsemint. lb	2 25	Citrine. lb	1 25
Jasmin, alcoholic. lb	3 00	Iodine. lb	65
Juniper Berries. lb	1 25-1 50	Mercurial, 1/2 m. lb	55
		Mercurial, 1/3 m. lb	55

Stramonium. lb	75	Bicarbonate, cryst., M. C. W.....lb	25
Tar.....lb	50	Bicarbonate, cryst., H. P., Merck's.....lb	24
Zinc, benzoated. lb	65	Bicarbonate, granulated, M. C. W.....lb	25
Zinc, oxide. lb	65	Bicarbonate, powd. lb	35
OPIUM, powd., Merck's.....lb	5 28	Bichromate. lb	16-18
ORTHOFORM. oz	1 40	Bromide, cryst. or gran., 1-lb cart., M. C. W. lb	36
PANCREATIN, Merck's, pure.....oz	44	Bromide, crys. or gran., 5-lb bxs, M.C.W..lb	29
Pure, scales, P. D. & Co.....oz	50	Carbonate, purified, M. C. W.....lb	41
PAPAIN, Boehringer. oz	75	Carbonate, bulk. lb	15
Merck's. oz	75	Caustic, pure, Merck's.....lb	37
PARAFFINE, refined. lb	12-15	Caustic, C. P., Merck's.....lb	2 59
PARALDEHYDE, Merck's. lb	99	Chlorate, cryst. lb	14-18
Merck's. oz	14	Chlorate, gran., pure, M. C. W.....lb	22
PARIS GREEN. lb	24-30	Chlorate, powd. lb	14-18
PASTILLES, Fumigating, black.....lb	50	Chromate, yellow, neutral. lb	40
Fumigating, red lb	50	Chromate, yellow, H. P., Merck's.....lb	69
PEARL ASH. lb	8-10	Citrate, M. C. W.....lb	72
PEEL, Orange, sweet, ground.....lb	25	Citrate, H. P., Merck's.....lb	1 19
Orange, bitter, coarse.....lb	20	Cyanide, fused, M. C. W.....lb	45
Orange, bitter, powdered.....lb	25	Cyanide, C. P. 99%.....lb	52
Orange, sweet, quarters.....lb	20	Cyanide, Miner's, 10-lb tin.....lb	28
PELLETIERINE, Sulphate, Merck's, 15-gr vial	1 75	Ferricyanide, chem. pure, M. C. W.....lb	59
Tannate, Merck's, 15-gr vial.....	40	Ferrocyanide, pure, Merck's.....lb	59
PEPPER, black, Singapore, sifted.....lb	25	Glycerinophosphate. oz	29
Black, powd. lb	30	Hypophosphite, purified, Merck's.....lb	1 14
White. lb	40	Hypophosphite, M. C. W.....lb	99
White, powd. lb	40	Iodide, M. C. W., 1-lb boxes.....lb	2 50
PEPSIN, pure, U. S. P.....lb	4 00	Nitrate, cryst. lb	7½-10
Powd. or scales lb	4 00	Nitrate, granulated. lb	7½-10
Powd., Ph. G. III.....oz	30	Nitrate, chemically pure, M. C. W.....lb	30
PHENACETINE. oz	33	Oxalate, neutral. lb	28
PETROLATUM, 1-lb cans.....doz	2 00	Permanganate, cryst., 1-oz vials.....oz	8
50-lb pails. lb	6½	Permanganate, large cryst., pure, M.C.W..lb	34
25-lb pails. lb	7	Permanganate, small cryst.....lb	25
10-lb cans. lb	8½	Phosphate, 1-oz vials.....oz	11
5-lb cans. lb	9	Phosphate lb	64
Snow White, 50-lb pails.....lb	15½	Prussiate, red. lb	65
Snow White, 25-lb pails.....lb	16½	Prussiate, yellow. lb	35
Snow White, 10-lb cans.....lb	18	Sulphate, cryst. or powd.....lb	16
Snow White, 5-lb cans.....lb	25	Sulphate, chemically pure.....lb	60
Snow White, 1-lb cans.....lb	30	Sulphide (Liver Sulphur).....lb	24
PEPTONE, Merck's, dry, from meat.....oz	34	Sulphurated, Merck's. lb	25
PHENILINE. oz	1 00	Tartrate (soluble Tartar).....lb	59
PHENOLPHTHALEIN oz	39	POWDER, Antimonial lb	75
PHOSPHORUS, 1-lb cans.....lb	85	Aromatic. lb	1 25
½-lb cans.....lb	95	Carbolic Acid, disinfecting.....doz	1 50
¼-lb cans.....lb	1 05	Chalk, aromatic. lb	1 25
Amorphous. lb	1 44	Chalk, compound. lb	75
PIPERAZIN, Schering's 10-gm vials.....bot	1 50	Chalk and Opium.....lb	2 06
½-oz and 1-oz.....oz	4 25	Composition, 2-oz papers.....lb	35
PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62	Dover's. lb	1 25
Merck's. oz	62	Insect, Buhach, 6-lb cans.....lb	60
PIPE CLAY. lb	10	Insect, Dalmatian. lb	25-30
PITCH, Burgundy. lb	12	Insect, Mrs. Hill's, 6-lb cans.....lb	35
PITH, Sassafras. oz	20-25	Jalap, comp. lb	1 00
PLATINUM and Barium Cyanide, cr., Merck. gr	11	Licorice, comp. lb	20
And Potassium Chloride, M'k's, 15-gr vials. ea	85	Licorice, comp., 2-oz packages.....doz	75
Chloride, Merck's. oz	20 00	Rhubarb, comp. lb	1 25
Chloride, solution, 10%, Merck's.....oz	3 07	Tooth. lb	50
PODOPHYLLIN oz	30	PROPYLAMIN, 10% solution, Merck's....oz	55
POPPY HEADS, German. lb	30	Hydrochlorate, ¼-oz vials. oz	3 50
POTASH, Babbitt's, 4 doz in case.....case	3 25	PROTARGOL. oz	1 25
Caustic, pure, by alcohol.....lb	64	PULVIS ANTIMONIALIS. lb	75
Caustic, white. lb	45	PYOKTANIN, Blue or Yellow, Merck's...oz	1 50
Caustic, 10-lb cans.....lb	10-12	PYRIDINE, Merck's. oz	32
Solution (liq. potass.) lb	35	QUICKSILVER. lb	80
POTASSIUM, Acetate, Merck's, 1-lb bot...lb	42	QUINACETINE. oz	85
Acetate, M. C. W., 1-lb.....lb	42	QUINALGIN. oz	1 25
Antimonate, Merck's. lb	1 09	QUININE, Alkaloid, 1-oz vials, M. C. W...oz	59
Arsenate, 1-oz vials, Merck's.....oz	14	Bisulphate, 1-oz vials, M. C. W.....oz	29
		Bisulphate, 5-oz cans, M. C. W.....oz	27

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Citrate, 1-oz vials, M. C. W.....oz	58	Golden Seal lb	2 00
Muriate, 1-oz vials, M. C. W.....oz	52	Golden Seal, pressed lb	2 00
Phosphate, 1-oz vials, M. C. W.....oz	56	Golden Seal, powd lb	2 05
Salicylate, 1-oz vials, M. C. W.....oz	55	Hellebore, black, pressed.....lb	20
Sulphate, 1-oz cans, M. C. W.....oz	31	Hellebore, black, powd.....lb	25
Sulphate, 5-oz cans, M. C. W.....oz	26	Hellebore, white, pressed, lb.....lb	22
Sulphate, 25-oz cans, M. C. W.....oz	25	Hellebore, white, powd.....lb	25
Sulphate, 50-oz cans, M. C. W.....oz	25	Indian Hemp, black, pressed, lb.....lb	35
Sulphate, 100-oz cans, M. C. W.....oz	24	Indian Hemp, black, powd lb	40
Tannate, Neutral, Merck's.....oz	34	Indian Hemp, white, pressed lb	25
Tannate, 1-oz vials, M. C. W.....oz	34	Indian Hemp, white, powd lb	30
Valerianate, 1-oz vials, M. C. W.....oz	58-66	Ipecac, Rio, powd.....lb	2 50
QUINOLINE, Merck's oz	45	Jalap lb	30
Tartrate, Merck's oz	45	Jalap, powd lb	35
RED SAUNDERS lb	10	Kava Kava lb	50
RESIN, Jalap, Merck's.....oz	54	Ladies' Slipper, pressed, lb.....lb	28
Copaiba lb	1 25	Licorice, select lb	16
Scamony oz	85	Licorice, pipestem lb	18
RESORCIN, cryst., Merck's oz	18	Licorice, cut, Russian lb	20
Resublimed, H. P., Merck's.....oz	66	Licorice, powd lb	16-20
M. C. W.....lb	1 50	Mandrake, pressed, lb.....lb	30
M. C. W.....oz	19	Mandrake, powd lb	35
ROOT, Abscess, pressed, lb.....lb	40	Marshmallow, cut lb	34
Aconite, powd.....lb	35	Marshmallow, powd lb	35
Aconite, pressed.....lb	32	Musk lb	30
Alkanet lb	25	Orris, Florentine lb	25
Alkanet, powd.....lb	30	Orris, Florentine, Fingers.....lb	1 25
Angelica, pressed lb	20	Orris, Florentine, granulated.....lb	35
Angelica, powd lb	25	Orris, Florentine, powd.....lb	30
Arnica, pressed lb	35	Pareira Brava, pressed lb	34
Belladonna, pressed, lb.....lb	20	Pink lb	1 00
Belladonna, powd.....lb	28	Pink, powd lb	1 05
Berberis Aquif, pressed, lb.....lb	35	Pleurisy, pressed lb	25
Beth, pressed, lb.....lb	30	Poke, pressed lb	15
Beth, powd lb	35	Poke, powd lb	20
Blackberry, pressed, lb.....lb	30	Pond Lily, white, pressed lb	40
Blood, pressed, lb.....lb	30	Pond Lily, white, powd lb	40
Blood, powd.....lb	35	Pond Lily, yellow, pressed lb	30
Blue Flag, pressed lb	25	Pond Lily, yellow, powd lb	35
Burdock, pressed, lb.....lb	18	Rhatany lb	30
Burdock, powd.....lb	25	Rhatany, powd lb	35
Calamus, peeled lb	30	Rhubarb, East India lb	75
Calamus, white, peeled and split.....lb	40	Rhubarb, East India, powd lb	75
Calamus, powd.....lb	35	Rhubarb, cut in cubes, No. 1.....lb	1 50
Cohosh, black, pressed.....lb	15	Rhubarb, cut in cubes, No. 2.....lb	1 25
Cohosh, black, powd.....lb	20	Rhubarb, cut in fingers, No. 1.....lb	1 75
Cohosh, blue, pressed, lb.....lb	18	Rhubarb, cut in fingers, No. 2.....lb	1 50
Cohosh, blue, powd.....lb	25	Salep, powd lb	1 00
Colchicum lb	28	Sarsaparilla, American lb	24
Colchicum, powd lb	35	Sarsaparilla, American, powd lb	30
Columbo, foreign lb	18	Sarsaparilla, Honduras lb	40
Columbo, powd.....lb	25	Sarsaparilla, Honduras, ground lb	45
Comfrey, pressed, lb.....lb	20	Sarsaparilla, Honduras, powd lb	45
Comfrey, powd.....lb	25	Sarsaparilla, Mexican lb	25
Cranesbill, pressed, lb.....lb	25	Sarsaparilla, Mexican, ground lb	25
Culvers, pressed, lb.....lb	25	Sarsaparilla, Mexican, powd lb	30
Culvers, powd lb	30	Senega, pressed lb	90
Dandelion, Am., pressed, lb.....lb	25	Senega, powd lb	95
Dandelion, powd lb	30	Silkweed, pressed lb	28
Dwarf Elder, pressed, lb.....lb	35	Skunk Cabbage, pressed lb	30
Elecampane, pressed, lb.....lb	15	Skunk Cabbage, powd lb	35
Elecampane, powd lb	20	Snake, Canada, pressed lb	30
Gelsemium, pressed, lb.....lb	21	Snake, Virginia lb	75
Gelsemium, powd lb	25	Snake, Virginia, powd lb	75
Gentian lb	16	Spikenard, pressed lb	72
Gentian, ground lb	20	Spikenard, powd lb	30
Gentian, powd lb	20	Squills, white, sliced lb	15
Ginger, African lb	15	Squills, powd lb	60
Ginger, African, powd lb	18	Stillingia, pressed lb	25
Ginger, Jamaica, bleached.....lb	22	Stillingia, powd lb	30
Ginger, Jamaica, bleached, powd.....lb	22	Stone, pressed lb	21
Ginseng lb	8 50-10 00	Sweet Flag, pressed lb	25

Turkey Corn	lb	28	Larkspur	lb	65
Unicorn, true, pressed	lb	35	Lobelia	lb	80
Unicorn, true, powd	lb	40	Lobelia, powd	lb	95
Unicorn, false, pressed	lb	40	Millet, American	lb	5
Unicorn, false, powd	lb	45	Mustard, black, Trieste	lb	10-12
Valerian, English, bulk	lb	35	Mustard, white	lb	10-10
Valerian, English, powd	lb	35	Poppy Blue	lb	16
Valerian, German	lb	30	Pumpkin	lb	22
Valerian, German, powd	lb	30	Rape, California	lb	5
Yellow Dock	lb	25	Sabadilla	lb	35
Yellow Dock, ground	lb	30	Sabadilla, powd	lb	30-35
Yellow Dock, powd	lb	30	Stavesacre	lb	40
Zedoary	lb	30	Stavesacre, powd	lb	45
ROSIN, No. 1	lb	4-5	Stramonium	lb	25
Barrel	4 50-5 00		Stramonium, powd	lb	30
ROUGE, Jewelers'	lb	50	Sunflower	lb	15
SACCHARIN	oz	20	Watermelon	lb	25
SAFFRON, American	lb	1 50	Worm, American	lb	25
Spanish	oz	75	Worm, American, powd	lb	25
Spanish	lb	8 00	Worm, Levant	lb	35
SAL, Acetosella	lb	45	Worm, Levant, powd	lb	40
Epsom	lb	2½-5	SEIDLITZ MIXTURE	lb	28-30
Glauber	lb	1½-4	SILVER, Bromide, 1-oz. vials, M. C. W. oz	1 19	
Nitre	lb	9-10	Chloride, 1-oz vials, M. C. W. oz	84	
Nitre, granulated	lb	10	Cyanide, 1-oz vials, M. C. W. oz	1 04	
Nitre, powd	lb	10	Iodide, 1-oz vials, M. C. W. oz	1 04	
Prunelle	lb	45	Lactate, Merck's	oz	1 04
Rochelle	lb	28-29	Nitrate, cryst., 1-oz vials, M. C. W. oz	58	
Soda	lb	1½-3	Nitrate, cones, 1-oz vials	oz	70
Tartar	lb	12-15	Nitrate, fused (Lunar caustic), 1-oz vials, M. C. W. oz	61	
SALICINE, Merck's	oz	37	Nitrate, fused, No. 2, 1-oz vials	lb	48
Salicine	lb	4 60	SNUFF, Garrett's, 1-oz tins	doz	60
SALIPYRINE	oz	1 00	Garrett's, 1½-oz tins	doz	1 00
SALOL, Mallinckrodt's	oz	15	Garrett's, 3½-oz tins	doz	1 75
Salol, Mallinckrodt's, cartons	lb	1 17	Garrett's, 6-oz bots	doz	3 00
Salol, Merck's	lb	1 25	Maccaboy, 3½-oz bots	doz	2 00
Salol, Merck's	oz	15	Rappee	lb	65
SALOPHEN	oz	1 00	Rappee, 3½-oz bots	doz	2 00
SANTONIN, bulk, M. C. W. lb	13 09		Scotch, Lorillard's	lb	65
Cryst., Merck's	oz	91	Scotch, Lorillard's	doz	2 00
1-oz vials, M. C. W. oz	94		Scotch, Garrett's Bladders	lb	55
SEED, Angelica	lb	25	SOAP, Castile, Conti's, white, box 13½c less ..lb	16	
Anise, Italian	lb	20	Castile, mottled, box 8½c; less	lb	12
Anise, Italian, powd	lb	25	Castile, Kirk's (San Bernaldo) white, 18 bars	per box	3 00
Anise, Star	lb	45	Castile, powdered, white	lb	35
Bird, mixed, bulk	lb	7	Green, German	lb	25
Bird, mixed, boxes	doz	75	Opodeldoc	lb	20
Bird, mixed, cases, 30 pks	1 75		SODA, Ash	lb	1¾-5
Burdock	lb	25	Caustic, Sticks, Merck's	lb	34
Canary	lb	9-10	Caustic, com., drums	lb	3-4
Carraway, Dutch	lb	12	Caustic, com., 10-lb drums	lb	6½-7½
Carraway, powd	lb	15	Caustic, purified, fused	lb	40
Cardamon, Malabar	lb	1 25	Sal (carbonate) bbls., 1¼c	lb	3
Cardamon, Mangalor, bleached	lb	1 25	Soda Silicate, dry	lb	35
Cardamon, powd	lb	1 40	Soda Silicate, liquid	lb	15-25
Celery	lb	25	SODIUM, 1-oz vials, M. C. W. oz	25	
Colchicum	lb	70	Acetate, M. C. W., carton	lb	17
Colchicum, powd	lb	75	Arsenate, 1-oz vials	oz	9
Conium	lb	25	Arsenite, 1-oz vials, M. C. W. oz	10	
Coriander, German	lb	12	Benzoate, 1-oz vials, M. C. W. oz	11	
Coriander, German, powd	lb	20	Benzoate, 1-lb bots, F. W. B. lb	51	
Cumin	lb	18-20	Benzoate, true fr. Gum Benzoin, Merck's ..oz	29	
Dill	lb	25	Bicarbonate, C. P., powd., M. C. W. lb	11	
Fennel	lb	20	Bicarbonate, kegs, 3c	lb	4-5
Fennel, powd	lb	25	Bisulphite, dry, pure, Merck's	lb	27
Flax, recleaned	lb	5	Borate, neutral, Merck's	oz	19
Flax, ground	lb	5-7	Bromide, M. C. W. lb	41	
Flax Oil Cake	lb	2½-3½	Cacodylate, Merck's	oz	1 40
Foenugreek, powd	lb	12	Carbonate, pure cryst., 1-lb car., M. C. W. lb	11	
Hemp, recleaned	lb	6½-8			
Henbane	lb	35			

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Carbonate, pure gran., 1-lb car., M. C. W.	lb	11	Salicylate, M. C. W.	lb	83
Carbonate, dried, C. P., 1-lb car.	lb	32	Sulphate, M. C. W.	lb	79
Cinnamate	oz	59	STYPTICIN, Merck's	oz	6 50
Citrate, M. C. W.	lb	74	STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.	oz	1 70
Glycerophosphate, 75%, Merck's	oz	28	Arsenate, 1/8-oz vials, M. C. W.	oz	1 70
Glycocholate	oz	1 44	Bromide, 1/8-oz vials, M. C. W.	oz	1 70
Hypophosphite, purified, Merck's	lb	1 14	Citrate, 1/8-oz vials, M. C. W.	oz	1 70
Hypophosphite, 1-oz vials, Merck's	oz	15	Crystals, 1/8-oz vials, M. C. W.	oz	1 45
Hyposulphite, 112-lb kegs	hundred	2 55	Hypophosphite, 1/8-oz vials, M. C. W.	oz	1 95
Hyposulphite, less	lb	5	Muriate, 1/8-oz vials, M. C. W.	oz	1 70
Iodide, 1-oz vials, M. C. W.	oz	31	Nitrate, 1/8-oz vials, M. C. W.	oz	1 70
Iodide, H. P., Merck's	oz	31	Phosphate, 1/8-oz vials, M. C. W.	oz	1 80
Iodide, M. C. W.	lb	3 53	Sulphate, 1/8-oz vials, M. C. W.	oz	1 40
Nitrate, cryst., C. P.	lb	29	Sulphate, 1-oz vials, M. C. W.	oz	1 20
Nitrate, gran., pure, 1-lb cartons	lb	18	Crystals, 1-oz vials	oz	90
Phosphate, pure, recryst., bulk	lb	12	Crystals, in bulk	oz	85
Phosphate, gran., pure, M. C. W.	lb	20	Powdered, in bulk	oz	80
Phosphate, dried, powd.	lb	24	Powdered, 1/8-oz vials	oz	1 05
Salicylate, Merck's	lb	49	Powdered, 1-oz vials	oz	85
Santoninate, Merck's	oz	89	STYRAX, liquid	lb	60
Succinate	oz	29	SUGAR, burnt	lb	25
Sulphate, Glauber Salts	lb	3-5	Grape	lb	12
Sulphate, Glauber Salts, bbl.	lb	1 1/2	Milk, crystals	lb	30
Sulphate, dried	lb	18-20	Milk, powd., bulk	lb	23
Sulphite, crystals	lb	10	Milk, powd., 1-lb cart.	lb	23
Sulphite, granulated	lb	18	SULFONAL, 1-oz vials	oz	1 35
Sulphite, dry, Merck's	lb	22	SULPHUR, California, ground, 110-lb bags		2
Tartrate, Merck's	lb	64	Flowers	lb	5
SOLUTIONS, Donovan's	lb	34	Flour, Native	lb	2 1/4
Fowler's	lb	30	Flowers, in bags	lb	2 3/4-3
Goulard's	lb	35	Flowers, Bergenport	lb	3
Nitrate, Iron	lb	50	Iodide, Merck's	oz	38
Mercury, Nitrate	oz	20	Lac., precip.	lb	18
Monse's	lb	50	Roll, bbl.	lb	2 3/4-5
Tin, Chloride	lb	35	Sicily, ground	lb	10
SOMATOSE, Biscuit, 8-oz boxes	doz	4 25	Strips	lb	15
Somatose, Ferro, 2-oz tins	doz	10 50	Washed	lb	15
Somatose, 2-oz tins	doz	8 25	SUMAC		
Somatose, 1 1/4-lb tins	lb	5 25	SYRUP, Ginger, U. S. P.	lb	65
Somatose, 1 1/2-lb tins	lb	5 00	Hydriodic Acid	lb	70
SOZOIODOL, Mercury, Merck's	oz	1 15	Iron Iodide	lb	65
Potassium, Merck's	oz	75	Ipecac	lb	60
Sodium, Merck's	oz	80	Lactucarium	lb	1 00
Zinc, Merck's	oz	1 10	Orange Peel	lb	65
SPARTEINE, Sulphate, Merck's, 1/8s	oz	83	Rhubarb	lb	60
Sulphate, 15-gr. vials	ea	12	Rhubarb, Aromatic	lb	65
SPERMACEIN, in cakes	lb	35-40	Rhubarb and Potash	lb	65
SPIRIT, Ammonia	lb	75	Sarsaparilla	lb	65
Ammonia, aromatic	lb	75	Sarsaparilla, comp.	lb	65
Camphor	lb	65	Senna	lb	65
Chloroform, U. S. P.	lb	75	Senega, U. S. P.	lb	65
Lavender	lb	60	Simple	lb	35
Nitre, U. S. P., 1-lb bots	lb	60	Squill	lb	60
Nitre, U. S. P., 4-lb bots	lb	55	Squill, comp.	lb	60
Nutmeg	lb	60	Stillingia, comp.	lb	60
Pimento	lb	60	Tolu	lb	60
Rosemary	lb	60	Wild Cherry	lb	60
STEARIN	lb	20	Yerba Santa comp.	lb	65
STONE, Pumice, select	lb	10	TALCUM, powdered	lb	6-8
Pumice, select, powd.	lb	8-10	Purified	lb	25-30
Rotten	lb	12-15	TAMARINDS, pound bottles	lb	25
Rotten, powd	lb	10	Keg	ea	3 50
Soap, cut	lb	18	Pulp	lb	50
Soap, powd	lb	8	TANNALBIN	oz	80
STRONTIUM, Bromide, cryst., M. C. W.	oz	11	TANNIN, 1-lb cartons, incl	lb	90
Carbonate, M. C. W.	lb	34	1-oz cartons, incl	oz	12
Hypophosphite, M. C. W.	oz	29	TANNIGEN	oz	75
Iodide, 1-oz vial, M. C. W.	oz	30	TANNOFORM, Merck's	oz	22
Lactate, Merck's	oz	16	TANNOPINE	oz	75
Muriate, M. C. W.	lb	39	Veterinary	oz	25
Nitrate, pure, dried, Merck's	lb	59			

TAR, Barbadoes	lb.	25	Myrrh	lb	75
Coal	gal	25	Myrrh and Capsicum.....	lb	75
Pine, bulk	gal	40	Nux Vomica	lb	65
Pine, ½-lb cans.....	doz	75	Opium	lb	1 25
Pine, 1-lb cans.....	doz	90	Opium, camphorated	lb	60
Pine, 2-lb cans.....	doz	1 50	Opium, deodorized	lb	1 30
Pine, gal cans.....	doz	6 00	Orange Peel	lb	65
TARTAR EMETIC, M. C. W.....	lb	54	Quassia	lb	60
TEREBENE, bulk, 1-lb bottles.....	lb	74	Rhatany	lb	60
Merck's	oz	14	Red Saunders	lb	65
TERPIN HYDRATE, cryst., Merck's.....	oz	10	Rhubarb	lb	65
Pounds, Merck's	lb	60	Rhubarb, Aqueous	lb	60
TERPINOL, Liquid, Merck's.....	oz	47	Rhubarb, Aromatic	lb	70
THEOBROMINE, Alkaloid, Merck's.....	oz	90	Rhubarb, comp.....	lb	65
And Sodium Salicylate, Merck's.....	oz	60	Rhubarb, Sweet	lb	65
THIOL, dry	oz	1 00	Rhubarb and Aloes.....	lb	65
Liquid	oz	42	Rhubarb and Senna.....	lb	65
THYMOL, 1-oz vials, Merck's.....	oz	25	Senna	lb	65
Pounds	lb	2 90	Senna, comp.....	lb	65
THYROIDIN, Merck's	oz	1 30	Serpentaria	lb	65
TIN, Chloride, Merck's.....	lb	53	Stramonium Leaves	lb	65
Metallic, feathered	lb	1 00	Stramonium Seed	lb	65
Muriate, solution	lb	35	Strophanthus	lb	1 25
Oxide, white, pure, Merck's.....	lb	99	Tolu	lb	75
TINCTURE, Aconite Leaves.....	lb	65	Valerian	lb	65
Aconite Root	lb	75	Valerian, ammoniated	lb	85
Aconite Root, Fleming's.....	lb	90	Veratrum Viride	lb	65
Aloes	lb	65	Warburg's	lb	1 75
Aloes and Myrrh.....	lb	65	TRIKRESOL, S. & G.....	lb	60
Arnica	lb	65	TRIMETHYLAMINE, Merck's	oz	55
Asafoetida	lb	65	TRIONAL	oz	1 50
Belladonna	lb	65	TRIPOLI, bulk	lb	8-12
Benzoin	lb	75	TURPENTINE	gal	92
Benzoin, comp.....	lb	75	In case	gal	87
Blood Root	lb	65	Chian	oz	45
Buchu	lb	65	Venice	lb	35
Cantharides	lb	75	URANIUM, Acetate, 1-oz vials, Merck's...oz		59
Capsicum	lb	65	Chloride, 1-oz vials, Merck's.....oz		47
Cardamom	lb	75	Nitrate, 1-oz vials, Merck's.....oz		45
Cardamom, comp.....	lb	75	Sulphate, 1-oz vials, Merck's.....oz		47
Catechu, comp.....	lb	75	UROTROPIN	oz	60
Cinchona, comp.....	lb	75	Tablets, 20 in box.....	box	25
Cinnamon	lb	65	UNGUENTUM CREDE, ½-oz jars.....oz		90
Colchicum Root	lb	75	URETHANE, Merck's	oz	54
Colchicum Seed	lb	75	VANILLIN, 1-oz vials.....oz		75
Columbo	lb	60	VERATRINE, pure, ⅛-oz vials.....oz	2	40
Conium	lb	65	VERONAL, powd.....oz	1	60
Cubebs	lb	65	Tablets, 15s	ea	40
Digitalis	lb	65	Tablets, 100s	ea	2 25
Ergot	lb	75	VERDIGRIS	lb	40
Ergot, ethereal	lb	80	Powdered	lb	45
Galls	lb	60	WATER, Cherry, Laurel.....pt		50
Gelsemium	lb	75	Chlorine	lb	40
Gentian	lb	60	Distilled	gal	6
Gentian, comp.....	lb	65	Elder Flower	lb	50
Ginger	lb	65	Orange Flower, triple.....lb		35
Guaiaac	lb	75	Orange Flower	gal	2 00
Guaiaac, ammoniated	lb	75	Orange Flower, Chiris, small.....doz	2	00
Guaiaac, Dewees'	lb	75	Orange Flower, Chiris, large.....doz	3	75
Hyoscyamus	lb	65	Rose, triple	lb	40
Iodine	lb	1 25	Rose	gal	2 00
Iodine, colorless	lb	1 25	Rose, Chiris, 6¾-gal coppers.....gal	1	75
Iodine, comp.....	lb	1 25	Rose, Chiris, small.....doz	2	00
Iodine, Churchill's	lb	1 50	Rose, Chiris, large.....doz	4	00
Ipecac	lb	80	WAX, Bayberry	lb	40
Iron Acetate	lb	65	Bees, yellow, refined.....lb	35-37	
Iron Chloride	lb	50	Bees, yellow, oz.....lb	35	
Iron Citro-Chloride	lb	65	Bees, white, extra.....lb	55	
Jalap	lb	65	Bees, white, No. 1.....lb	40	
Kino	lb	75	Bowdlear's, 1-lb cartons.....doz	4	80
Lobelia	lb	60	Fruit, can, red.....lb	8	
Lobelia, ethereal	lb	65	Fruit, can, white	lb	8
			Japan	lb	18-20

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WAX, FLOOR	lb	25-33
Johnson's, 1-lb cartons.....	doz	4 00
Johnson's, 1/4-lb cartons.....	doz	2 25
Johnson's, 1/4-lb cartons.....	doz	1 40
WHITING, Gilders'	lb	3
Spanish	lb	2 1/2
WINE, Antimony	lb	65
Aromatic	lb	65
Colchicum Root	lb	75
Colchicum Seed	lb	65
Ergot	lb	1 25
Ipecac	lb	1 25
WOOD, Brazil, ground.....	lb	10
Camwood	lb	10
Fustic, cut	lb	3 1/2-5
Fustic, ground	lb	6
Guaiac, rasped	lb	10
Hypernic	lb	8
Logwood, chip	lb	5
Logwood, ground	lb	6
Nic	lb	6
Quassia, chip	lb	10
Quassia, ground	lb	15
Quassia, powdered	lb	25
Red Sanders, ground.....	lb	10
Red, cut, ...	lb	7
XANTHOXYLIN, Keith's	oz	1 13
XYLOL	lb	70
ZINC, Acetate, Merck's.....	lb	43
Acetate, 1-lb bottles, M. C. W.....	lb	43
Benzoate, Merck's	oz	24
Benzoate, 1-oz vials, M. C. W.....	oz	24
Carbolate, 1-oz vials, M. C. W.....	oz	24
Carbonate, precipitate, 1-lb cartons.....	lb	25
Chloride, fused, 1-oz vials, Merck's.....	oz	13
Chloride, granulated, Merck's.....	lb	33
Cyanide, 1-oz vials, M. C. W.....	oz	21
Hypophosphite, 1-oz vials, Merck's.....	oz	29
Iodide, 1-oz vials, M. C. W.....	oz	37
Metallic, pure, feathered.....	lb	27
Oxide, English, Hubbuck's.....	lb	45
Oxide, wet process, Merck's.....	lb	30
Permanganate, Merck's	oz	52

Phosphate, M. C. W.....	oz	10
Phosphide, Merck's	oz	23
Sulphate, cryst.....	lb	8-10
Sulphate, cryst., chemically pure.....	lb	18
Sulphide, 1-oz vials, M. C. W.....	oz	16
Sulphocarbonate, M. C. W.....	lb	59
Sulphocarbonate, 1-oz vials, M. C. W.....	oz	11
Sulphate, H. P., Merck's.....	lb	15
Sulphate, dried, H. P., Merck's.....	lb	25
Sulphocarbonate, Merck's	oz	11

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case....	\$10 00	\$2 65
Apollinaris, 50 qt bots in case.....	8 50	2 25
Apollinaris, pints.....	12 00	1 50
Buffalo Lithia, 12 1/2-gal. bots in case..	6 00	....
Bartlett, 50 qt. bots. in case.....	8 00	2 25
Bethesda, 50 qt. bots. in case.....	7 50	2 25
Bethesda, 12 1/2-gal. bots. in case.....	5 50	....
Bythia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50
Franz Joseph, 50 bots. in case.....	11 00	3 00
Garrod Spa Lithia, pints.....	....	6 00
Garrod Spa, Lithia, 1/2-gal.....	....	5 00
Hathorn, 48 pt. bots. in case.....	8 00	2 50
Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, 1/2 gallons.....	9 50	6 50
Londonderry Lithia, 100 pints.....	13 50	1 75
Poland, qts., 50 to case.....	9 00	2 50
Rackoczy Kissengen .....	....	5 00
Red Raven Splits.....	5 00	1 40
Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Veronica .....	....	5 50
Vichy Water Celestine.....	10 00	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.....	12 00	4 50

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1907
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THE PACIFIC PHARMACIST

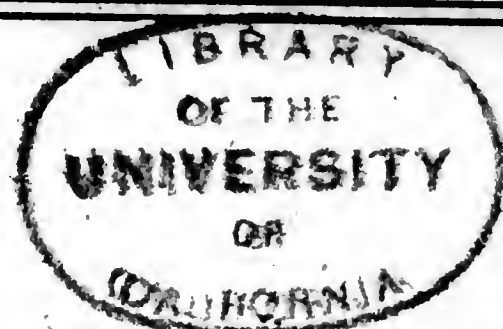


JUNE, 1907

VOL. 1

No. 2

AN INDEPENDENT JOURNAL DEVOTED
TO SCIENTIFIC PHARMACY AND THE
INTERESTS OF THE DRUG TRADE



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To the Druggists of the U. S.

For several years past we have had printed upon the face of our cartons, as well as in our newspaper advertisements, the fact that in the manufacture of our laxative we use senna as well as figs, and we have now decided, in order to make the name more fully descriptive of the remedy, to add to the name Syrup of Figs the words "and Elixir of Senna." The trade and the public will doubtless continue to call for the remedy by the original and shorter name of Syrup of Figs, but hereafter its full official title will be, as printed upon our labels and cartons, "Syrup of Figs and Elixir of Senna."

Our "general guaranty" has been filed with the Secretary of Agriculture and will fully protect the trade in the sale of our remedy, as we will comply with all the requirements of the Food and Drugs Act of June 30, 1906.

Yours very truly,

California Fig Syrup Co.

San Francisco, Cal.

Louisville, Ky.

New York, N. Y.

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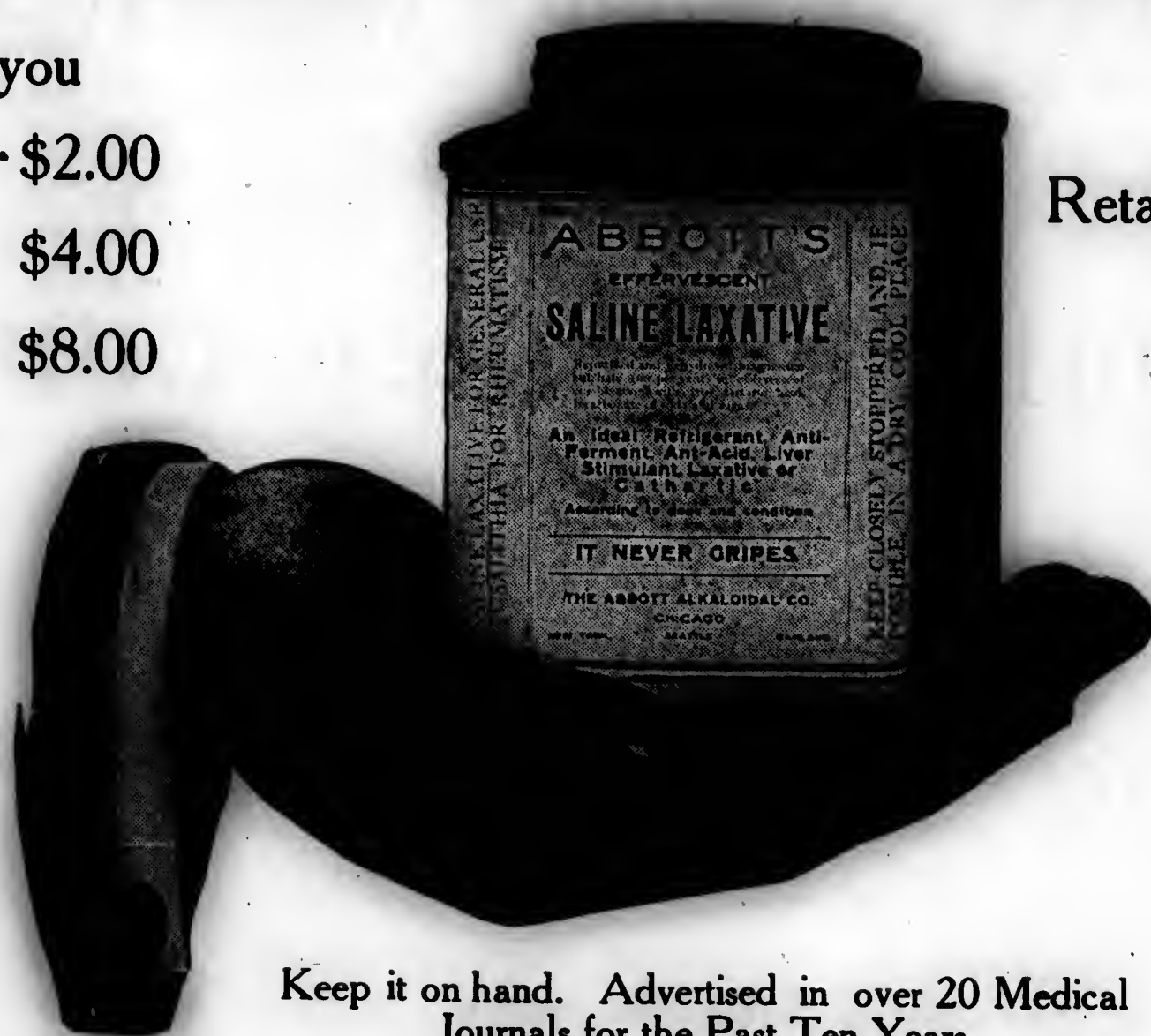
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Comp. Fluid Extract Buchu.....	33.00	17.00	9.00	3.50
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THE Pacific Pharmacist

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

Vol. 1

JUNE, 1907

No. 2

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Editorial Notes

OUR NEW OVERCOAT

Owing to the many hindrances incident to the strenuous conditions of life in this city, the first number of the **Pacific Pharmacist** had to come out in a temporary cover. The present issue shows the design which we have adopted as a permanent cover. We hope that our subscribers will like it, for, while we do not assent to the saying "fine feathers make fine birds," we are nevertheless mindful of Lord Chesterfield's remark that "a pleasing appearance is the best letter of introduction," and, friends, we want to please you first and serve you afterwards.

WHOLE- SALE PROSECU- TIONS UNDER THE PHARMACY LAW IN LOS ANGELES

President E. T. Off and Secretary Whilden of the State Board of Pharmacy have been visiting the drug stores of Los Angeles, for the purpose of finding out how far the Pharmacy Law is obeyed in that city. According to the daily papers they appear to have discovered an incredible state of affairs. No less than thirteen stores are mentioned in which infractions of the law were observed. In all of these cases the proprietors, and in some cases the clerks, were arrested.

A PHARMACY WITHOUT A PHARMACIST

In one instance two men were found owning and conducting a drug store, neither of them being a pharmacist, and having no registered man on the premises. In other cases, prescriptions were compounded by unregistered persons who practiced substitution of the worst possible kind. A case or two of this description in so large a city need not have occasioned much surprise, because there are men all over the world who will assume to do things for which they are wholly unfitted. But in addition to what has been mentioned, the sale of poisons was carried on in many stores in utter disregard of the law, and in a way absolutely dangerous to the public. Those arrested were convicted in the courts, and fined in most cases twenty-five dollars each.

THE LAW TO BE ENFORCED

We understand that it is the intention of the Board of Pharmacy to enforce the law vigorously in all parts of the State. We hope they will do this. San Francisco and other Bay cities have heretofore received nearly all the attention given by the board in enforcing the law, and we believe that for some years there has been but little ground for complaint against pharmacists in this vicinity. Let all be treated alike.

VIOLATORS SQUEAL

As might have been expected, there has been in Los Angeles some outcry against the State Board by those who have been caught violating the law. It is nothing new for law-breakers to complain. While we feel sorry to find one or two reputable pharmacists among the number of the delinquents, it is some satisfaction to know that they are not among those

charged with substitution or selling habit-forming drugs to "fiends." Their offenses have been confined to allowing unregistered persons to sell drugs, and to the sale of poisons without registering the same. This is bad enough, and there is no doubt that the lesson they have learned will deter them and others from a repetition of these offenses.

PHARMACY AND FRAUD

We believe these prosecutions will do good. The Pharmacy Law is a protection to the public, when duly enforced. In the long run it pays to live up to the law, and the general observance of it tends to strengthen the feeling on the part of the public that the management of a drug store calls for some qualities other than those that pertain to the simple buying and selling of merchandise. The sooner the time comes, and we hope it is not far distant, when every druggist will have sufficient self-respect to decline to make money by trading upon the ignorance, the weaknesses or the vices of his customers, the sooner will pharmacy be looked up to as an art or a profession. As we read the reports in the Los Angeles daily papers, in which the loose, and in some cases nefarious, methods of business were fully written up, it almost made us feel ashamed to call ourselves pharmacists. Nothing makes us more disgusted than to hear talk about the "profession of pharmacy" by men whose daily life violates every instinct of the professional man.

THE LAW GOOD

There is no need of a Pharmacy Law for some persons. Their high sense of honor, added to their knowledge of the professional side of their calling, leads them to conduct their business in a just and honorable way. But there

are some, and we suppose there always will be, who must be whipped into line by the sharp lash of the law. It is better that a few recalcitrants should smart than that the whole body of druggists should be discredited. When our lives show that we are self-respecting men, the public will respect us, and pharmacy will be elevated.

THE "DRUG TRUST" INJUNCTION? WHAT DOES IT MEAN? Many druggists seem to be needlessly disturbed over the Indianapolis decree, by which the N. A. R. D., the N. W. D. A. and others have been enjoined from doing certain things, and, not being versed in the intricacies of legal phraseology, and therefore afraid to trust their own interpretation of the lengthy legal document giving the decision of the court, some are asking with bated breath, "Where are we at?" For the information of all such, we give our understanding of the result of the decree.

1. It only enjoined against the doing of so-called unlawful acts from the date of the filing of the decree of injunction.

2. It does not affect dealings within any one State. We, however, in California, have the stringent Cartwright law, which embodies some of the features of the Sherman Anti-Trust Law.

3. It leaves manufacturers and jobbers at liberty, acting individually, to control the terms, prices and conditions upon which they sell their goods. They can sell to whomsoever they wish, or refuse to sell at all, or sell to one and refuse to sell to another. They are not called upon to give their reasons for such refusal.

4. The publication of a "black list" is prohibited.

5. While there was no judgment against any of the parties sued (the

N. A. R. D., etc.), nor any judgment declaring the contracts between the various parties (manufacturers, retailers, etc.) unlawful, yet the decree declared all such contracts void, and enjoined their observance.

It appears to us that the decree practically admits that a proprietor has the right to fix the price at which his preparations shall be sold, and to protect himself from having his business ruined, or seriously injured by cutters. The contracts between manufacturers, jobbers and retailers were all right, but inasmuch as they were the result of an agreement between these three parties, they were adjudged a "conspiracy," and assumed to be, but by no means proved to be, in restraint of trade.

THE CALIFORNIA PURE DRUGS ACT

This law, which will go into effect on the first of January, 1908, contains some provisions which seem to us objectionable to druggists without any benefit to the public. Every dealer in drugs should thoroughly understand the law, in order that he may avoid exposing himself innocently to vexatious prosecution with its attendant undesirable notoriety:

Prosecution to be Looked for

A cursory perusal of the law reveals the not over pleasant fact that the purpose of the act and its whole machinery are designed for the prosecution of druggists, and by its provisions every druggist is in a sense on trial. "Agents" are to be appointed in every county in the State, whose duty it will be to find adulterated or misbranded drugs, and where no officers are appointed, the law makes the sheriff of the county such officer. These

officers are to be appointed by the State Board of Health, or its secretary, who are usually political doctors, not always friendly to druggists. These "agents" will, of course, receive salaries, which it will be incumbent upon them to earn by getting evidence upon which to base prosecutions. Now we have not the slightest objection to make against the machinery of the law being put into operation to detect and punish those who wilfully and knowingly sell adulterated drugs and medicines, or who put such articles upon the market under false or misbranded names. But we caution the druggists of California that it will be almost impossible for them to conduct their business without danger of violating the letter of the law in many cases, owing to the narrow definition of what constitutes adulterated or misbranded drugs.

**Accused
Must
go to
Sacra-
mento**

These agents and sheriffs are to visit drug stores and purchase articles suspected to be adulterated. These are to be delivered to the director of the State Laboratory for the analysis of foods and drugs, and if he finds evidence of adulteration or misbranding, he is to report the same to the secretary of the State Board of Health and also to the district attorney of the county in which such drug was found. (Section 12.) It is then the duty of the State Board of Health to notify the seller of the time when he can appear before that body with what testimony he may wish to offer in defense. This preliminary trial **must take place at Sacramento.** Think of that, you denizens of Trinity, Humboldt, and San Diego counties! Think of the expense of taking witnesses and perhaps an attorney such a journey, for a mere

preliminary trial, when, if that goes against you, a real trial in your own county has yet to be had. And all this for, possibly, a technical, not intentional or injurious violation of a hastily enacted law.

**Stan-
dards
Other
than
U. S. P.
and N. F.**

By making the United States Pharmacopœia and the National Formulary the standards of strength and purity of all "drugs," the law confuses impurity with adulteration. Many drugs and chemicals contain small amounts of impurities that are harmless and unobjectionable for the purposes for which they are generally used, even as food and medicine, that yet do not conform to the standard thus set. These can be sold under the law if the label attached to them states "the standard of strength, quality of purity" to which they do conform. Here is a difficulty: How is the druggist to know what "standard" every one of the ten thousand drugs, chemicals and preparations in his store conforms to? Many chemicals can be bought with the strength marked upon them by the manufacturer, but many others, not purchased in original packages, will vary in strength and purity, so that what he buys in July will be different from what he bought in February. A few illustrations will show how this matter will work out.

**i. Sub-
limed
Sulphur,**

the "sulphur" of the pharmacopœia, is largely used by farmers for sulphuring vines, and is sold at retail for that purpose at 2½ cents a pound. It does not conform to the standard of the U. S. P., but answers the viticulturist's purpose as well as

the purest, at about one-half the cost. It is not enough that the seller labels it "sold for agricultural uses only," or "not sold for use as a medicine," but he must tell to what standard of purity it conforms. In other words, all such crude drugs must be sold on assay. This is impracticable. So the druggist must take his chances of having to make a visit to Sacramento to satisfy the State Board of Health that he was justified in technically violating the law.

But if he sell "sulphur" to a farmer for his horses, pigs, or cattle, can he sell the ordinary commercial sublimed or the ground sulphur? No, the law requires him to sell such as will conform to the U. S. P., or else he must state on the label what "standard" it does conform to, which in ordinary cases is impracticable.

2. Sodium Bicarbonate

is largely used in domestic cookery and a hundred other ways in which the standard of the U. S. P. is not met, nor is there any reason why it should be. The impurities consist chiefly of sodium chloride and sodium sulphate, the former always put into bread and many other articles of healthy diet, and the latter insignificant in quantity and absolutely harmless. Yet the cost of sodium bicarbonate U. S. P. is several times as much as the commercial, and for most uses practically no better. Are the citizens of California to be prohibited from buying a good commercial article of every day use because of this foolish provision in the law, or must the seller, be he druggist or grocer, have every package of bicarbonate of soda labeled with the exact analysis of every lot he buys? And, if he does not purchase it in original packages, will the wholesaler

furnish him with an assay of each lot? And if he does, how is the retailer to mark it, one lot containing different amounts of impurity from another?

3. Sweet Spirit of Nitre

is easily made or purchased of a quality to conform to the U. S. P., but after it has been kept a few days, especially if in a white glass bottle, partly filled, in a light, warm store, it becomes acid and deficient in ethyl nitrite. Even when the greatest care is taken to preserve it from chemical change, that is almost impossible in our warm summer months. It will be an easy thing for an "agent" to nab an unsuspecting druggist by calling for sweet nitre.

4. Fluid Extracts and Tinctures

are required to conform to the U. S. P. and N. F. This means that, where there is no alkaloidal or other assay directed, they should contain a certain proportion of alcohol. Pharmacists will need to be very careful to watch their percolators, filters, etc., or the proportion of alcohol in the finished product will be considerably below the standard. There is no small difference of opinion among manufacturers of galenical preparations made with alcoholic menstrua as to the percentage of spirit in the final product, but it is usually considerably less than that taken, except where the preparation is made entirely with alcohol.

Percentage of Alcohol

With regard to the alcohol content of official preparations, it appears as if section 6 of the law required that that should be stated on every package. We have not seen any ruling by the Department of Agriculture on this point in

the National Pure Food and Drug Law, but suppose that official preparations will be exempted from this provision. As the rulings of the department are made to apply to the California law, druggists should watch for such rulings.

The illustrations given above suffice to show the danger to which an honest druggist is exposed through his unintentional technical violation of the law. Other instances will occur to every druggist. Under these circumstances, what is to be done with "drugs" that are good enough for many uses in the arts, agriculture, and domestic economy, but not up to the standard of the U. S. P. and N. F.? It is impossible to sell many of them upon actual analysis. The public want them at the cheaper price, the dealer has them to sell, and the law imposes impossible conditions. In the language of Boss Tweed, "What are you going to do about it?"

**Will
Agents
Enforce
the
National
Law?**

But our troubles are not ended yet. Section 21 appears to make "the National Pure Food Act," whatever that is, the law of this State, so far as it relates to the sale of articles made and guaranteed by parties residing "without this State." See the following clause:

"In case the wholesaler, jobber, manufacturer, or other party making such guaranty to said dealer resides without this State, and it appears from the certificate of the Director of the State Laboratory that such article or articles were adulterated or misbranded within the meaning of this act, or the National Pure Food Act, approved June 30, 1906, the district attorney must forthwith notify the

Attorney-General of the United States of such violation."

Under this section, the "agents" employed by our State officials to enforce the California drug law are also empowered to carry out the national law, which deals with foods as well as drugs. This appears to enlarge the scope of the law, but inasmuch as the title of the bill (see last number, page 58) mentions only drugs, it is doubtful whether food products come within its provisions. There can, however, be no doubt that the agents of our State Board of Health will be employed to see that the national law is enforced, so far as it deals with drugs. California druggists should therefore keep themselves well informed as to all the provisions of both these laws.

**Only a
Slight
Change
Needed**

On the whole, our California law is a good one. Its intention is evidently to deal mainly with misrepresentation. This is shown by the requirement that articles that do not conform to the standard of the U. S. Pharmacopœia or the National Formulary shall bear a label stating the standard to which they do conform. We have shown that such a statement cannot, in many cases, be made. If the law had made a proviso that articles that were not fully up to the required standard for "drugs," as defined in section 2, could be sold under a statement that they were "not to be used for the cure, mitigation, or prevention of disease of either man or other animals," it would have served the public just as well, and have left dealers free to sell these goods for other uses. Other terms could be devised that would meet the requirements of public safety, and still leave trade unhampered by needless restric-

tions. Let everything be sold on its merits, for what it is. Let there be no misrepresentation as to quality, strength, or purity. Let such drugs as are sold for medicinal use be up to the medicinal standard, but such as are for other purposes be sold without any restrictions, except such as would be necessary to prevent fraud or crime.

SCARCITY OF GRAD- UATES

A few years ago it was common to hear certain pharmacists complain that the colleges were turning out too many graduates; that the business was already overdone, and by graduating so many young people they were overcrowding the drug business. The idea seemed to prevail that as soon as a young man had completed his college course he would begin to look around to see where he could crowd in and open a new drug store. In vain was it shown that less than half of the persons who entered the drug business were college graduates, and that of the number who completed their course, a considerable proportion afterwards took up the study of medicine or entered manufacturing establishments, or in some other way drifted out of pharmacy. The complaint still was that the colleges were overcrowding the drug business. No such complaint is made now; on the contrary applications for graduates are sent to the colleges constantly in excess of their ability to supply the demand. There is now all over the country a great scarcity of drug clerks. Why this great change in a few years?

Large and Small Stores

Among the noteworthy changes in the drug business during recent years has been the growth of large establishments, and the forcing out of

small concerns. Competition has been intensified, and the business is less attractive to persons with small capital. A bright capable man with two or three thousand dollars now usually prefers to invest his money in something else, and accepts a position as a clerk at a sum of \$100 to \$125 per month, with the possibility of an increase. This is as much as he would make when owning a small store and having his little capital locked up, while he has more liberty than he would have if tied to a small store.

Fewer Students

At the same time the number of young men who have been fitting themselves to become pharmacists has been much less than in former years. The confinement and the small compensation have made it unattractive to many persons. Furthermore, some of those who have commenced the life of a pharmacist have found themselves disqualified either by want of preliminary education or by an indisposition to devote themselves to scientific study sufficiently to attain mediocrity as pharmacists, and have dropped out. The feeling is now general that to be a successful pharmacist a person should acquire some knowledge of the sciences upon which pharmacy is based, and that a person who has no aptitude for the necessary study had better find some other calling. More is required now of a drug clerk than formerly. He is required to be neat and tidy in his personal appearance, and to keep everything around him in like condition. He is required to be a good salesman and an able pharmacist, and the number of persons having these requirements is not large; so the cry now is "Why don't you give us more graduates? They at least should be good pharmacists, and if they are

made of the right kind of timber, we can make business men out of them."

Last month we published as a supplement copies of the laws affecting pharmacists that were enacted by the last legislature. By the misplacing of a note explanatory of this circumstance, the supplement, consisting of sixteen pages of printed matter, appeared as part of our regular issue. The regular size of this journal will be forty-eight pages of reading matter in addition to the price current and advertisements.

PURE FOOD AND DRUG NOTES

One of the effects of the Pure Food and Drug Law is said to have been a sharp advance in the price of vanilla beans, especially the Tahiti product. "Extract of Vanilla" cannot now be made from vanillin, doctored with Tonca bean, coumarin or other "blending" ingredients.

It is noteworthy also that the Mallinckrodt Chemical Works and others are sending out price lists of chemicals guaranteed to be of the standard of strength and purity required by the law. These lists embrace almost all the official chemicals.

The wholesale liquor dealers, who are all "rectifiers of spirits," that is mixers of spirituous liquors, and manufacturers of "blended" wines and liquors, are just now greatly exercised over Attorney-General Charles J. Bonaparte's opinion to the effect that mixtures of alcohol, water and flavoring materials cannot be sold as whiskies, nor mixtures of whiskey and alcohol and water as "blends." The former must be sold as "imitation whiskies," and the latter as "whiskey compound," or by some such name. The Secretary of Agriculture has ruled that the opinion of the Attorney-General will govern the action of the Government in these cases.

Preparations are being made by the Government for the enforcement of the National Pure Food and Drug Law. A board of inspectors, consisting of three experts, has been appointed, and it is expected that analysts will be employed to work under their direction. In States that have enacted laws similar to the Interstate Law, it is probable that this board of experts will act with the State officers.

The San Francisco daily papers have published statements to the effect that a large number of druggists, and some of them prominent ones, have been arrested in Los Angeles for violating the Pharmacy Law. The offences alleged to have been committed are all the way from the employment of unregistered clerks to the selling of morphine and cocaine. We know there are black sheep in every community, and it is not to be wondered at that a city as large as our southern metropolis should have one or two. But we can hardly believe that the state of affairs pharmaceutical down there is as bad as it has been reported. Even in wicked San Francisco we give the devil his due (or we hope to before we have done with him), and certainly we would not be less lenient to our erring brethren in the City of Angels. *Audi alterem partem.*

SHALL GRADUATION BE MADE A REQUIREMENT FOR REGISTRATION?

Elsewhere we quote in full an editorial from the "Midland Druggist" advocating the making of graduation a requirement for registration. We do this with the greater pleasure from the fact that only a few years ago, when we were having a sharp controversy with our esteemed contemporary on the subject of higher entrance requirements for colleges of pharmacy, he took the opportunity to express himself somewhat vigorously against the

very thing he now advocates. "The world do move," and our friend is not only moving with it, but is no laggard in the procession. At the time we were having our little good-natured spat, the writer was hardly prepared to advocate this advance movement, though believing in it, and looking forward, longingly to the time when it should be adopted. Hence it is with peculiar pleasure that we welcome this utterance by the "Midland Druggist," and congratulate him on the stand he now takes.

CULTIVATION OF MEDICINAL PLANTS

In our last issue we published the first of a series of articles by our Associate Editor, Dr. Schneider, on "Native and Introduced Medicinal Plants in California." In this number is another by the same writer on "Suggestions on the Cultivation of Medicinal Plants in California." These will be followed by others on the same lines. While these articles refer to conditions in California, where the author has had the means of making observations, there are many parts of the Pacific Coast equally well adapted to the cultivation of some of these plants. The climate of the Coast is remarkably equable, extremes of heat and cold are unknown in many sections, and almost every variety of soil is to be found. Some native American drugs are becoming scarcer every year, and there may be opportunities for turning an honest penny by watching opportunities. These articles by Dr. Schneider may have no special value to some of our readers just now, but others will appreciate them, and it will pay to keep them for future reference.

LABELS MUST BE TRUTHFUL

In answer to a correspondent's inquiry on the subject of labeling preparations as required by our new State

law, we quote from Section 5: "The term misbranded shall apply to all drugs, the package or label of which shall bear any statement, design or device . . . which shall be false or misleading in any particular, and . . . as to the county, city and county, city, town, State, territory, District of Columbia or Foreign Country in which it is manufactured."

This classifies as adulterated or misbranded a large number of preparations with which this city has been flooded, being the names of fictitious firms, purporting to do business in "New York," "London," "Paris" and elsewhere. As the seller is responsible, druggists should carefully examine their stock of proprietaries, face lotions and toilet remedies.

FIFTY STUDENTS OF THE DEPARTMENTS OF MEDICINE, PHARMACY AND DENTISTRY OF THE COLLEGE OF PHYSICIANS AND SURGEONS RECEIVE THEIR DIPLOMAS

Large Gathering Attends the Graduation Exercises of College at Van Ness Theatre

Exhorting them to be true to the ideals and principles as laid down in their alma mater, 50 graduating students of the College of Physicians and Surgeons were presented with their diplomas Thursday by President Winslow Anderson at exercises held in the Van Ness Theatre.

Many of the students' friends were present. Among the speakers was Rev. Joseph P. McQuaide, who, during his remarks, said that he hoped the time would come when there would be a far stronger bond of friendship between the various professions and the clergy.

SUGGESTIONS ON THE CULTIVATION OF MEDICINAL PLANTS IN CALIFORNIA.—II.

By Albert Schneider, Ph.D.

III. General Suggestions on the Cultivation of Medicinal Plants.—As explained, California is a country of varied vegetation, native and introduced. On looking over the existing agricultural, horticultural, and arboricultural resources of the State one is astounded at the variety of crops grown successfully. With few exceptions the plant-cultural enterprises are conducted on an enormous scale as compared with similar European efforts, or even those of the eastern and southern states. This brief statement should suffice as a significant hint to those who have the intelligence, ambition, and courage to begin the cultivation of medicinal plants in California.

Though a repetition, it may be stated that all medicinal plants which thrive well in the State of California (and this certainly applies to the majority of species now in use) may be cultivated profitably provided the enterprise is properly initiated and carried on. It should be emphasized that random, unintelligent, illy considered attempts are to be discouraged, as they lead to mistaken conclusions and to failures. Excepting perhaps in a few instances, it is not advised to grow medicinal plants as a side line or "small crop," nor is it advised that those unfamiliar with the chemistry, constituents, and physiological action of vegetable drugs should initiate or superintend such cultural efforts. Well-educated pharmacists are primarily qualified to take the initiative in this work, and it

is to these that the information here given is primarily directed.

In order to avoid the unprofitable preliminary experimenting above hinted at, it is very strongly urged that beginnings be made with well-known and highly important medicinal plants, as digitalis, aconite, belladonna, scopolia, rheum, golden seal, and others. While it is possible to get valuable information from books, correspondence, and hearsay, with regard to the desirable cultural methods, and accordingly to make fairly successful beginnings, it would nevertheless be very profitable to send qualified men to countries where these various plants are already grown successfully, with instructions to remain at least several months, to work in the fields and to collect concise and reliable data with regard to the most successful and most profitable methods employed. On returning, these observers should be placed in charge of the field work, with specific instructions to adapt, to the best of their ability, the foreign methods to American (Californian) conditions and requirements. The difference in cost of European and American labor must be adjusted by the use of suitable labor-saving machinery and devices. For example, if it is desired to begin the culture of digitalis and other plants, an intelligent, well-educated man should be sent to the digitalis fields of England, secure employment as a laborer, and carefully record the culture methods, methods of curing, garbling, packing, shipping, marketing, etc. In the course of a few

months, or perhaps one season, he should be in a position to give reliable and exact advice as to how to begin the successful culture of English digitalis in California, and should be in position to conduct, take charge of, and superintend the field work, etc. As to what additional or new may be desirable in the way of methods, machinery, devices, etc., must be determined by experience and inventive genius. Similarly chamomile, chicory, and bittersweet culture should be studied in Germany; licorice, saffron, squill, and belladonna culture in Spain; licorice and rheum culture in Turkey and Asia, etc. Following these suggestions would in the end prove most profitable. As an instance, may be cited the very successful Anglo-American method of growing English mustard in the Lompoc Valley, Santa Barbara County, Cal. Much may of course be learned from the several attempts that have been made in this country, particularly in California. For example, insect flower, chicory, canaigre, English mustard, calendula, lavendula, tan oak, humulus, eucalyptus, rose (American Beauty), poppy, cardamom, ginger, have been grown with more or less success, to say nothing of the staple crops as onions, sugar-beets, oranges, lemons, limes, olives, carob, asparagus, celery, Indian hemp (for fiber), etc., and the native medicinal plants as cascara, yerba mansa, berberis, manzanita, and others. Numerous ginseng gardens have been established within recent years in different parts of the United States. Pot and garden herbs are grown everywhere, but almost wholly for culinary purposes.

IV. General Suggestions on Culture Methods.—Most of the medicinal plants like most other economic plants require rich, well-tilled soil. Some thrive best in a moist rich soil, as rhu-

barb, iris, mints, luffa, colocynth, may apple, hydrastis and ginseng, while others thrive better in a rich, sandy, comparatively dry soil, as cacti, aloes, digitalis, aconite, mustard and belladonna. Some require shade, as hydrastis, ginseng, may apple, wild ginger, etc. We cannot enter into a discussion of the subject in full, nor can we discuss fertilizing of soil, rotation of crops, irrigation, special methods of cultivation, etc. These are all subjects which must be carefully considered by those who are about to enter upon drug culture.

It will be found that most of the plants recommended for cultivation are herbs or herbaceous, either annuals or biennials. In the case of biennials it is of course necessary to wait two seasons for a marketable crop, as with digitalis and hyoscyamus.

In conclusion it is desired to call attention to the possibilities in extending the range of successful plant culture, in many instances. We need only recall the extension northward of the orange and lemon culture in California. There is no doubt that many drug-yielding and other plants of the tropics and sub-tropics, which are now looked upon as unlikely of successful culture in California, may on careful and more extended trial do well, as ginger, cardamoms, cinchona and others. (For further information consult the literature which will be cited at the close of the paper.)

V. Preparing Cultivated Vegetable Drugs for the Market.—The following remarks are intended as mere suggestions which it is hoped will be found useful in adopting suitable methods of drug culture in California.

The exact chemical constituency of many medicinal plants is as yet not fully understood and much research

work along these lines is still to be done. This applies especially to plants bearing medicinal alkaloids and glucosides. It is also known that the amount of active constituents varies greatly during the vegetative period and in plants from different localities, and it would be very desirable for the drug growers to make chemical analyses of the plants grown at intervals of about one or several months in order to determine the exact period when the active constituents are most abundant and what plant parts are most active. Such work should of course be supplemented by a reference to the literature on analyses made of plants growing in other localities.

The manner in which the drug is prepared also modifies the active constituents, quantitatively as well as qualitatively, for which reason the following suggestions are offered:

1. Time of Collecting.—Drugs should be collected at the time when the desired active principle or constituent is present in maximum quantity. Unfortunately this period is as yet not accurately determined for many plants. The chemical analyses above referred to should be applied in order to clear up the uncertainties.

Naturally the time of collecting depends upon the part of the plant to be used. In a general way it may be stated that the drug is collected when the plant organ or part to be used medicinally has reached its full development. Flowers, floral parts, fruits and seeds are collected at the time of maturity; not after maturity. There are, however, numerous exceptions. The flowers of pale rose, *lavendula*, orange, *santonica*, the fruits of the poppy, *elaterium*, vanilla and the seeds of pepper, allspice and cubeb, are collected before maturity. Most leaves and leafy herbs are collected at the time of flow-

ering or shortly before that period. Generally leaves and herbs not having a strong odor, as aconite, belladonna, *verbascum*, *stramonium*, *digitalis*, *hyoscyamus* and others, are to be gathered shortly before blossoming, while aromatic leaves and herbs as *absinthium*, tansy, the mints, pennyroyal and rosemary should be collected at the time of blossoming.

With subterranean organs as roots, rhizomes, tubers and bulbs, also the bark of trees and shrubs, the time of collecting is more at variance. The most suitable time for collecting these is just prior to or at the time of the cessation of active seasonal growth of the plant, and as is known to the plant grower, this period varies considerably. There are, however, some very notable exceptions to this general rule. *Belladonna* roots gathered from the blossoming and fruit-bearing plants (July, in the Eastern States and in Europe) are twice as valuable as those collected in March or in October. The roots of *taraxacum*, *valerian*, *gentian*, *angelica*, *tormentilla* and others should be collected in the spring, although there is some difference of opinion with regard to *taraxacum* and *valerian*, some authorities stating that these roots should be collected in the fall. Aconite roots should be collected from the flowering plants. Roots and rhizomes of perennial herbaceous plants, as *calamus*, *asarum*, *inula*, *licorice*, *hydrastis*, *ginseng* and others should as a rule not be collected before the close of the third year or season. Roots of biennial plants should be collected in the fall of the second year. Barks should as a rule be collected in the fall, at the time of the cessation of the seasonal active growth.

Leaves are generally collected at maturity, without any special reference to the age of the plant from which they

are obtained. However, there are notable exceptions. The best tea is obtained from the exceedingly young leaves and terminal branches. The best coca leaves are picked from the shrubs three to five years old. The first year leaves of digitalis and hyoscyamus are not to be used, nor the young (dorsiventral) leaves of eucalyptus.

2. **Collecting the Drug.**—It is practically useless to attempt giving suggestions which will be of real value to the large grower of medicinal plants. It is very important that detailed information should be obtained from those who have been engaged in enterprises of a similar kind for years. The following are mere hints which may prove useful:

Roots, rhizomes and other subterranean organs may be turned up by means of a plow, like potatoes. Picking and removing dirt must no doubt be done by hand, although various mechanical devices as rake, hooks, etc., may be found very useful. It would be very desirable to invent a device for removing leaves and flowers from plants. It may be that such machinery is on the market, but none has come to the notice of the writer. In some instances the entire plant may be cut and dried and the leaves removed by flailing, as is done in the case of *Eriodictyon californicum* (mountain balm). This method could no doubt be employed with other herbaceous and shrubby plants having rather thick leaves which become very brittle on drying. Herbs can, of course, be cut by means of mowing machines. Flowers and fruits must be collected by hand unless some one will invent suitable machinery to do the work, and the same may be said with regard to the removal of barks. Seeds, like mustard, are collected by mowing

the plants, drying and threshing, as is done in the mustard fields of the Lompoc Valley, California. This method would be very practicable with umbelliferous fruits, as anise, conium, caraway, fennel, etc. Some seeds and fruits can be removed from the plants by shaking and afterwards gathering by means of rakes or similar devices.

3. **Cleaning and Garbling.**—All drugs should be freed from foreign and undesirable matter which may cling to them. This applies particularly to subterranean organs, which must be freed from soil, sand, foreign roots and rootlets and other foreign particles. Most of the soil may be removed by brisk shaking, especially if the soil in which the plants have been growing, is quite dry and sandy. Wet adobe soil clings quite tenaciously and after drying it bakes and clings still more firmly. Soil which cannot be removed by shaking must be removed by washing in clean water. Leaves, herbs, barks, fruits and seeds should not be washed.

Washing should only be employed when necessary and should not be prolonged more than is required. Prolonged soaking and washing in water removes much of the active principle and reduces the value of the drug accordingly.

Garbling consists in sorting the drug; that is, removing by picking, sifting or winnowing all undesirable parts or particles. Careful cleaning and garbling gives the drug a clean, wholesome appearance and adds greatly to its commercial as well as medicinal value. Machinery and various mechanical devices are desirable or necessary in cleaning and garbling and splendid opportunities will present themselves to the progressive, enterprising, inventive genius.

Sorting proper is not permissible with drugs. That is, separating the crop yield into grades or different qualities as in the case of fruits and grains, for only first grades or qualities are wanted. Wholesale as well as retail dealers always call for the best quality drugs. The grower who should place on the market an inferior sorted article would be guilty of a gross misdemeanor.

4. Peeling, Cutting and Slicing.—

These processes hasten drying by increasing surface exposure and increasing the rate of evaporation of moisture. The special function of the epidermis and cork tissue is to reduce the evaporation of moisture from the interior of plant organs. Removing these tissues therefore permits the more rapid escape of moisture; as a result the drug dries more quickly, which is not only time saving, but also lessens the decomposition of active principles and reduces the tendency toward the development of microbes, moulds, mildews and other fungi as well as animal parasites.

Occasionally peeling is for the purpose of removing the outer inert portions, as with many barks (cinnamon, elm, soap bark, butternut, etc.) and the fruit of colocynth. In some instances peeling is practiced when it is unnecessary or undesirable, as in the case of ginger and calamus.

As a rule drugs which are cut or sliced are not peeled or decorticated for reasons which are perhaps self-evident, though there are exceptions, as for example, rhubarb roots, which are both peeled and cut. These operations are performed on fleshy roots, rhizomes, tubers and bulbs. Some are sliced or cut transversely, as bryonia, calumba and colchicum; some longitudinally, as gentian, calamus, bella-

donna, and some are generally cut in any direction, as inula, rhubarb and zedoary. The stems of bittersweet, rhizomes of couch grass, roots of chicory and others are cut transversely.

It should be remembered that peeling, cutting and slicing exposes the tissues containing the active constituents to the climatic influences which hasten their evaporation, dissipation and chemical decomposition, therefore these operations should be reduced as much as is practicable with a reasonably rapid and uniform method of drying or curing. In other words, the pieces should be left as large as possible.

Peeling is done by hand, likewise rossing (removing the outer bark) of barks, but cutting and slicing may be done by suitable mechanical devices.

5. Scalding.—Certain drugs, as some ginger, sarsaparillas, curcuma, salep and a few others, are placed in boiling water before drying. This kills the cells and prevents sprouting, it destroys parasites which may be present and hastens drying because moisture escapes much more rapidly from dead cells than from living cells.

6. Liming and Bleaching.—It has become customary to bleach and lime certain drugs, as some ginger, calamus, orris root and althaea roots. These processes are not necessary or desirable, excepting perhaps in rare instances and will be passed over without further comment. This also applies to the pernicious custom of coloring certain substances, as tea and coffee.

7. Drying.—After the drug has been collected, cleaned, garbled and otherwise prepared, it is ready to be cured or dried. This is an exceedingly important process to which much attention should be given. The object to be

attained is the removal of moisture in order to prevent the development of microbes, higher fungi and other organisms which feed upon the cell contents and as a consequence decompose the active constituents. It is desirable to dry drugs as quickly as possible. Exposing the drugs to direct sunlight is as a rule not desirable. Drying should be done under a shed with open sides and ends to insure free circulation of air. Fortunately the work of drying becomes easy as well as simple in the State of California, as most drug-yielding plants mature during the dry season, so that provision for rains need not be made. However, the dews and fogs of the nights, in many localities, especially near the coast, demand special consideration. Large sheds as above suggested should be built with tables or hurdles on which the drug is spread. These sheds should be long and narrow and the roof should be quite high above the hurdles. The drug should be spread evenly and turned several times daily. The tops of the hurdles or tables should be perforated to permit ready circulation of air from below. As soon as the air becomes very damp in the evening the drug should be heaped and covered with canvas to prevent the reabsorption of moisture from the atmosphere. This applies especially to leaves, flowers and herbs. Fleshy drugs (roots, rhizomes, tubers) may be left uncovered for the first night or two. Some drugs can no doubt be dried in the field on the ground, as mustard, fennel, caraway, mountain balm and some others.

Whether artificial heat is necessary or desirable must be ascertained experimentally. It would appear to the writer that air drying would prove satisfactory in nearly all instances. Such drugs as jalap, rheum, curcuma, ginger, saleg, sarsaparilla and a few others, are

often dried in ovens, in houses, over an open flame, and in other artificial ways, but that is done only in countries where the natural dry air is not available.

8. Packing and Shipping.—As soon as the drug is thoroughly dried it is ready for packing and shipment. No drug should be packed, either in small or large packages, unless thoroughly dry throughout. Containers, for shipment, whether large or small, should be porous so as to permit the escape of atmospheric moisture and the escape of moisture, slight though it must be, from the drug itself. Gunnysacks, sacks, barrels, wooden boxes, paper bags, pasteboard boxes, etc., will be found available. The problem of size and nature of containers, modes of shipment will solve itself with experience. The important facts to be kept in mind are that the drug should be thoroughly dry when packed, should be put in dry, clean, porous containers, should be stored in a dry place and should be kept dry in shipment.

9. Marketing Drugs.—It is of course perfectly natural that no one will attempt the cultivation of any drug unless there is a market for it. Nor is it reasonable to suppose that growers will so glut the market as to reduce the market value very considerably within say several years. No doubt the numerous ginseng plantations which have sprung up all over the United States within recent years will sooner or later reduce the market value of ginseng, but such effect is not yet appreciable. The grower can easily ascertain by inquiry where he can dispose of his product. Whether he deals with the wholesale houses or with the retail druggist will depend upon his personal inclinations, desires and ideas of business.

VI. Drug Culture and Manufacture.

—In many instances it would be most desirable or even almost absolutely necessary for the grower to become manufacturer. The grower of lavendula, for example, should manufacture and market the oil of lavender. The California growers of insect flower manufacture and market also the insect powder (buhach). The manufacturer of belladonna plasters should cultivate the belladonna required in his business. The grower of mints would find it profitable to also manufacture the oil and menthol. This applies especially to the growers of those drugs which should be used in the fresh or undried state for example, such as yield stearoptens, oils, gums, etc.

The mere suggestion must suffice as it would be impossible, within the scope of this paper, to enter into a discussion or fuller explanation. It is reasonable to suppose that a maximum profit accrues from an enterprise when the resources are developed in all possible directions. If it is profitable, for example, to cultivate mustard it would no doubt also be profitable to manufacture and market mustard oil. It is hoped that some enterprising individual may experiment with the cultivation of the less common drugs and the manufactured products that are obtained from them. For example, the rose and rose oil, the eucalypti richest in oil, thyme and the oil, etc.

It is estimated that 26,000,000 pounds of coffee will be gathered in Rio Janeiro during the coming month, as against 18,000,000 pounds last year.

SHALL GRADUATION BE MADE A REQUIREMENT FOR REGISTRATION?

Notwithstanding the number of splendid colleges of pharmacy which we possess, the general standard of admission to the practise of pharmacy in the United States is below that of Great Britain, Ireland or Canada. While we have many American pharmacists who are the peers of any in the world, it is a lamentable fact that there are on the registers of the various State boards a vast number who are totally incompetent. A large number of these were in business at the time of the passage of the laws, but many more have been admitted through too great laxity in the examinations. As the laws, with but few exceptions, permit the boards to fix their own standards, these official bodies have received general criticism for their failure to make their examinations severe enough to exclude the unfit. In their behalf, however, it should be remembered that whenever they have increased the severity of the examinations they have invariably been met with the outcry that raising the standard of admission to pharmacy would raise the wages of drug clerks, the objectors apparently forgetting that it is the abundance of cheap clerks which has caused the enormous multiplication of cheap drug stores with which they must compete.

On account of the opposition which will always be made to any independent action of the boards of pharmacy in raising the requirements for admission, we believe that the law itself should set the standard, and that this should be nothing less than graduation at a reputable college of pharmacy.

We are aware that many excellent pharmacists are not in harmony with

this idea, and contend that the education which was good enough for them is good enough for their clerks. Those who use this argument apparently overlook the fact that the educational value of store experience at the present time is very greatly below what it was a quarter of a century ago. Moreover, education in other professional lines has advanced so rapidly that nothing less than a college training will enable the pharmacist to obtain and hold that respect of the public which is absolutely essential to his professional and financial success. Certainly it would be greatly to the advantage of their patrons if future pharmacists should all be college graduates, and we believe that it would be equally to the advantage of pharmacy.

We also believe it to be almost, if not altogether, demonstrable that the esteem in which a vocation is held by the community, and the consequent honor and profit attached to its pursuit, depend more upon the character and education of the men who are engaged in that vocation than upon any other single factor, or perhaps more than upon all other factors combined.

Of all the influences which may operate to improve the condition of pharmacy in the future there is none so important, in our opinion, as the thorough education of the rank and file of pharmacists, an education not merely in the contents of the Pharmacopœia, but in the broadest and most liberal sense, a training which will help the future pharmacist to comprehend the relation of his profession to society, and his individual responsibility to both, which will enable him to adjust himself to the changing conditions of civilization, and to discover new outlets for his services—in short, an education which will lead him to no longer set himself in opposition to the laws

of progress, as he has often done in the past, but rather to acquaint himself with those laws and make them serve his purpose.

That graduation will at some future day be an essential for registration is doubted by few who have carefully studied present tendencies. The only difference of opinion seems to be as to the time when this reform should take place. Some say now; others, twenty years from now. The sensible thing for us to do is to take up the agitation and to continue at it until we have convinced both the public and the body of pharmacists of the necessity of a higher educational requirement, and have secured its enactment as a part of the formal law of every State in the Union.—Midland Druggist.

PHARMACY AT THE JAMESTOWN EXPOSITION

The enterprising editor of the "Druggist Circular" sent a special correspondent to Jamestown to find out what showing pharmacy was to make at the Exposition. The correspondent reported that he was about as successful in his mission as Diogenes was in search for an honest man. He replied tersely that "the drug trade would be conspicuous by its absence."

It is to be regretted that pharmacists take so little interest in such undertakings. Possibly they are too busy learning the elements of the Pure Food and Drug Law. If the pharmacist would spend more time in building up his prescription trade and less time in figuring out how to undersell his neighbor on Cuticura soap, etc., he would have more time and money to spend upon such pleasant and instructive affairs.

HOW WILL THE FEDERAL INJUNCTION AFFECT THE RETAILER?

By W. B. Cheatham

The injunction obtained by the Government against the N. A. R. D. and other drug trade organizations in the Circuit Court at Indianapolis was based upon the contention that the price protection plans were actually protecting, and that the N. A. R. D. had been instrumental in bringing the said plans to maturity, and in maintaining and extending them, through co-operation with the jobbers and manufacturers.

The above contention of the Government is sadly at variance with the opinion of the kicking grumbler in the retail drug business, who has so often denied that anything had been or would be accomplished in the way of protection by the organization, which seems to have grown while the **non-supporting barnacles**, through their ignorance were attempting to impede its progress.

The questions frequently asked are, "How will the injunction affect the Direct Contract and Serial Number plan, as a price-protection measure, and how will it affect the growth and usefulness of the N. A. R. D."

The D. C. and S. N. plan is **not at all affected**, provided the manufacturer will put the plan into effect **individually**, and not in "collusion" with other manufacturers or with any other agency or agencies.

There can be scarcely a doubt, that the manufacturer who has found the plan profitable through the increased sale of his goods, will fail to improve the opportunity to re-contract his goods.

The injunction does not prohibit the N. A. R. D. from teaching druggists that they are at perfect liberty to curtail or eliminate the sale of goods upon which they cannot make a satisfactory profit, and if the retailer would protect his own interest he will proceed to "top shelf" unprotected articles.

Retail dealers will please remember that more than twenty courts have passed upon and have declared the D. C. and S. N. plan to be legal. Several of these courts were Federal courts of equal standing with the Circuit Court at Indianapolis.

A recent decision of the Federal Circuit Court of New York says the D. C. and S. N. plan is legal in every way.

In the light of what other courts have decided regarding the plan, the Indianapolis decision represents one battle, if you please; and, granting that the Government won a victory, it does not follow that the N. A. R. D. members are to stand idle and not give battle for changes in the law that will enable them to make a reasonable profit on the goods they handle.

HOW WILL THE FEDERAL INJUNCTION AFFECT THE N. A. R. D.?

By W. B. Cheatham

As to the effect of the injunction on the N. A. R. D., no member need be worried, as this action of the Government will put the real workers in the organization in closer touch each with the other and bring out the spirit that means success; it will eliminate the sentimental prayers that have been going up to both jobbers and manufacturers who supposed they were throwing sand in the eyes of the organization, blinding it as to their real position on the Co-operative Teeter Board.

From the petitions that are flowing in to National headquarters, it requires no great stretch of the imagination to see that co-operative buying must follow swiftly on the heels of the injunction. Mutual fire insurance that will reduce the cost of insurance **to members only** has been decided upon at a meeting of the National Executive Committee, and, if found feasible, the affiliated associations are invited to state their wishes on the question of co-operative buying, and make suggestions as to what articles should be purchased on the co-operative plan.

Let every member of the National Association on this coast who wants to see the organization begin co-operative buying write at once, stating his desire and making suggestions as to what line of goods he thinks best to begin with, and address Coast Co-operative Buying Committee, 98 Sanchez Street, San Francisco. Those opposed should also write.

On receipt of the communications above requested, they will be tabulated and forwarded to National Headquarters.

NATIONAL FORMULARY CORRECTIONS

A number of errors have been discovered in the text of the National Formulary (third edition), but not all of them have been reported in the journals. To supply the corrections the American Pharmaceutical Association has issued the list of errata, which we publish below. The changes, with the exception of a few and comparatively unimportant errors, indicated by an (*), have all been made in copies of the edition, which have been supplied since March 15, 1907. Reconstructed formulas are also given for solution of albuminate of iron, elixir of pepsin and bismuth, and elixir of lactate of iron. Pharmacists should check the texts of their copies of the National Formulary with this list and make such corrections as may be necessary:

4—Aqua Sedativa—Second line formula: 3 fluid drachms, not fluid ounces.

*6—Campho-Menthol: should be Camphor-Menthol.

12—Elixir Bismuth—Second line from end of monograph: the word Citrate should be Tartrate.

17—Elixir Cinchonæ, Ferri, Bismuthi et Strychninæ—Third line from bottom of page; the word Citrate should be Tartrate.

18—Elixir Cinchonæ, Ferri et Bismuthi—Second line from end of monograph; the word Citrate should be Tartrate.

20—Elixir Cocæ—Second line of formula: 2 fluid ounces, not one fluid ounce.

21—Elixir Curassao—Second line of formula: 60 grains, not minims.

24—Elixir Ferri Lactatis—This formula has been modified and the text reconstructed as below.

30—Elixir Hypophosphitum—Fifth line of formula: 420 Cc. | 14 fluid

ounces, not 250 Cc. | 8 fluid ounces.

*34—(Elixir Pepsini, Bismuthi, et Strychinæ, p. 33); third line from top of page (34): 0.0006 Gm., not 0.006 Gm.

34—Elixir Pepsini et Bismuthi—This formula has been modified and the text reconstructed, as below.

35—Elixir Picis Compositum—Fourth line of formula: 12 fluid drachms, not 6 fluid drachms.

37—Elixir Potassii Bromidi—First line of formula: 5 1-3 troy ounces not 5 $\frac{3}{8}$ troy ounces; first line of direction: 825 Cc., not 325 Cc.

40—Elixir Sodii Hypophosphitis—Second line of titles: Hypophosphite, not Hyyophosphite.

42—Elixir Terpini Hydratis—First line of formula: 17.5 Gm., not 17.05 Gm.

56—Fluidextracta—Ninth line of text: place a period (.) between the numerals 456 and 392, so as to read 456.392 grains.

58—(Fluidextracta) Process C—Seventh line of text: Insert a bracket “)” after fluid ounces.

68—Glyceritum Bismuthi—Fourth line from bottom of page: 300 Cc. (or 10 fluid ounces), instead of 150 Cc. (or 5 fluid ounces).

80—(Liquor Auri et Arseni Bromidi, p. 79—Third line from top of page (80): 0.002 Gm., not 0.03 Gm., on fourth line: 0.005 (1-13 grain), not 0.06 Gm. (1-16 grain).

84—Liquor Ferri Albuminati—This formula has been modified and the text reconstructed, as below.

84—Liquor Ferri Hypophosphitis—Second line of formula: 6 $\frac{3}{4}$ troy ounces, not 6 $\frac{1}{4}$ troy ounces.

86—(Liquor Ferri Iodidi, p. 85): First line of note (p. 86): 81 per cent, not 85 per cent; second line, 11 volumes, not 15 volumes.

- 87—(Liquor Ferri Oxychloridi, p. 86): Third line from top of page (87): insert a period (.) between the figures 3 and 5, so as to read 3.5 per cent.
- 90—Liquor Hypophosphitum Compositus—Third line of directions: 250 Cc., not 350 Cc.
- 91—Liquor Magnesii Sulphatis Effervescens—Third line of directions: strike out "of about," and replace by the word "holding."
- 92—Liquor Morphinae Hypodermicus—First line of directions: insert "and Salicylic Acid" after "Morphine Sulphate."
- *94—Liquor Pepsini Aromaticus—Strike out the third title: "Aromatic Liquid Pepsin"; in fourth line of formula: change 4 drops to 8 drops.
- 98—Liquor Sodii Carbolatis—Strike out the third title: "Phenol Sodique."
- 100—Liquor Strychninae Acetatis—Third line of formula: 6 fluid drachms, not 6 fluid ounces.
- 101—Liquor Zinci et Alumini Compositus—First line of directions: 4000 Cc., not 5000 Cc.; on second line: 128 fluid ounces, not 160 fluid ounces.
- 101—Liquor Zinci et Ferri Compositus—Second line of directions: 4000 Cc. (or 128 fluid ounces), not 5000 Cc. (or 160 fluid ounces).
- 104—Mistura Adstringens et Escharotica—Third line of formula: Zinc, not Zince.
- 110—Mistura Guaiaci—Third line of formula: 220 grains, not 150 grains.
- 113—Mistura Splenetica—Third line of formula: 200 minims, not 200 grains.
- 118—Pasta Ichthyoli, Unna—First line for formula: Ammonium, not Ammoninum.
- 147—Spiritus Sinapis—Title: Sinapis, not Sinapsis.
- 150—Syrupus Bromidorum—Sixth line of formula: 32 Cc., not 82 Cc.
- 153—Syrupus Calcii Iodidi—Sixth line of formula: after "of each," insert a comma (,) and the words "a sufficient quantity."
- 159—Syrupus Ferri Lactophosphatis—Fifth line of formula: after "Syrup (U. S. P.)," insert a comma (,) and the words "a sufficient quantity."
- 160—Syrupus Ferri Saccharati Solubilis—First line of formula: 102 Gm. | 3 3-16 troy ounces, not 80 Gm. | 2¼ troy ounces.
- 162—Syrupus Mannae—Second line of formula: 24½ troy ounces, not 23½ troy ounces.
- 163—Syrupus Morphinae Compositus—First line of directions: 64 Cc., not 32 Cc.
- 169—Syrupus Sennae Aromaticus—Ninth line of formula: Diluted Alcohol, not Distilled Alcohol.
- 169—Syrupus Sennae Compositus—First line of formula: 4¼ fluid ounces, instead of 1024 minims. In first line on page 170: insert a period (.) between the numerals 0 and 52, so as to read 0.52 Gm.
- 170—Syrupus Stillingae Compositus—First line of formula: 8 fluid ounces, not 4 fluid ounces.
- 178—Tinctura Ferri Citro-Chloridi—Second line of formula: 425 Gm. | 13 troy ounces, not 410 Gm.—12½ troy ounces.
- 178—Tinctura Ferri Chloridi Aetherea—First line of formula: 59 Cc. | 15 fluid drachms, not 45 Cc. | 690 minims.
- 182—Tinctura Pectoralis—After second line of formula: 64 Cc. | 2

fluid ounces, not 32 Cc. | fluid ounces.

195—Vinum Pepsini—Fourth line of formula: 21 fluid ounces, not 23 fluid ounces.

199—Appendix—Fourth line of page: Preparations, not Preparation.

205—Emplastrum Asafoetidae—Third and fourth lines of formula: 230 grains, not 75 grains.

206—Emplastrum Picis Burgundicae—Second line of formula: $1\frac{1}{2}$ troy ounces, not 2 troy ounces; third line: $4\frac{1}{2}$ troy ounces, not 6 troy ounces.

207—Emplastrum Picis Cantharidatum—Fifth line of directions: insert the letter "o," omitted in the word "troy."

219—Linimentum Plumbi Subacetatis—Formula: change the apothecaries' quantity from 10 and 20 to 11 and 21 fluid ounces, respectively.

219—Liquor Ferri Acetatis—First line of formula: 800 Gm. | $25\frac{3}{4}$ troy ounces, not 1000 Gm. 32 troy ounces. Insert ("U. S. P. VIII") after "Solution of Ferric Sulphate."

220—Liquor Ferri Citratis—First line of formula: 840 Gm. 27 troy ounces, not 1050 Gm. | $33\frac{1}{2}$ troy ounces. Insert ("U. S. P. VIII") after "Solution of Ferric Sulphate."

230—Syrupus Ferri Bromidi—Second line of formula: 1140 grains, not 1122 grains.

240—Vinum Colchici Radicis—Second line of formula: 5 fluid ounces, not $5\frac{3}{4}$ fluid ounces; first line of directions: 27 fluid ounces, not $26\frac{1}{4}$ fluid ounces.

242—List of Preparations Added to Formulary—First column, line 16: "Durum," not "Dura"; second

column, line 2: after "Ichthyoli," add the word "Unna."

RECONSTRUCTED FORMULAS.

Elixir Pepsini et Bismuthi.

ELIXIR OF PEPSIN AND BISMUTH.

	Metric.	Apothecaries'.
Pepsin (U. S. P.).....	8.5 gm.	128 gr.
Glycerin	125.0 cc.	4 fl. oz.
Glycerite of Bismuth (N. F.)	125.0 cc.	4 fl. oz.
Distilled Water	250.0 cc.	8 fl. oz.
Aromatic Elixir (U. S. P.)	500.0 cc.	16 fl. oz.

Dissolve the Pepsin in the Glycerin and Distilled Water; add the Glycerite of Bismuth and Aromatic Elixir and mix.

4 Cc. (1 fluid drachm) contains 0.34 Gm. ($\frac{1}{2}$ grain) of Pepsin, and 0.13 Gm. (2 grains) of Bismuth and Sodium Tartrate.

Average dose: 8 Cc. (2 fluid drachms).

Note.—If desirable this Elixir may be colored by the addition of 2.5 Cc. (40 minims) of Caramel.

Elixir Ferri Lactatis.

ELIXIR OF LACTATE OF IRON.

	Metric.	Apothecaries'.
Lactate of Iron, in crusts	17.5 gm.	256 gr.
Potassium Citrate	52.5 gm.	768 gr.
Water	120.0 cc.	4 fl. oz.
Aromatic Elixir (U. S. P.), a sufficient quantity.		

To make 1,000 cc. 32 fl. oz.

Dissolve the Lactate of Iron and Potassium Citrate in the Water with the aid of a little heat. Then add enough Aromatic Elixir to make 1,000 Cc. (or 32 fluid ounces) and filter.

4 Cc. (1 fluid drachm) contain 0.065 Gm. (1 grain) of Lactate of Iron.

Average dose: 4 Cc. (1 fluid drachm).

Liquor Ferri Albuminati.

SOLUTION OF ALBUMINATE OF IRON.

	Metric.	Apothecaries'.
Dry Egg-Albumen	40 gm.	580 gr.
Solution of Ferric Oxychloride (N. F.)	130 cc.	$4\frac{1}{8}$ fl. oz.
Alcohol	120 cc.	$3\frac{3}{4}$ fl. oz.
Aromatic Elixir (U. S. P.)	400 cc.	$12\frac{1}{2}$ fl. oz.
Solution of Sodium Hydroxide (U. S. P.)		
Distilled Water, of each a sufficient quantity.		

To make 1,000 cc. 32 fl. oz.

Dissolve the Egg-Albumen in 2000

Cc. (or 64 fluid ounces) of Distilled Water, strain the solution through muslin, and add the Solution of Ferric Oxychloride previously diluted with 2000 (or 64 fluid ounces) of Distilled Water. Dilute 12 Cc. (or 3 fluid drachms) of Solution of Sodium Hydroxide with 100 Cc. (or 3 fluid ounces) of Distilled Water, and cautiously add a sufficient quantity of this fluid to the iron-albumen mixture to exactly neutralize it. This is shown by the fine, light precipitate, first formed, becoming flocculent and settling to leave a clear and nearly colorless supernatant liquid. Wash the precipitate rapidly with Distilled Water, by decantation, until the washings give but a faint cloudiness with silver nitrate test solution. Then drain the precipitate on a muslin strainer, transfer it to a porcelain dish, immediately add 10 Gm. (or 154 grains) of Solution of Sodium Hydroxide, and while stirring add Distilled Water—not exceeding 150 Cc. (or $4\frac{3}{4}$ fluid ounces) until the precipitate is dissolved. Finally, add the Alcohol and Aromatic Elixir, previously mixed with enough Distilled Water, to make the product measure 1000 Cc. (or 32 fluid ounces).

4 Cc. (1 fluid drachm) of this solution contain about 0.026 Gm. (2-5 grain) of metallic iron in the form of Albuminate.

Average dose: 8 Cc. (2 fluid drachms).

NOTES.

The new "United States Dispensatory," by Wood, Sadtler and Remington, is out. There is so much new matter in it that only a thoroughgoing fossil will try to keep store with an old copy.

SCIENTIFIC NOTES

By Albert Schneider, Ph. D.

Fermentation Without Living Cells

It has been known for some time that a fermenti zymase can be isolated from yeast cells which is capable of initiating and continuing alcoholic fermentation. It was left to Buchner to discover the fact that this zymase must be isolated quickly in order that it may not be destroyed or neutralized by an anti-zymase (endotryptase) which attains the ascendancy soon after the death of the yeast cells. This cell-less yeast ferment, known as Dauerhefe, will, no doubt, play a very important part in the industries. Our knowledge of enzymes or ferments and their antagonists, is as yet in its infancy, and we may confidently hope for important discoveries in the near future.

Hesse's Equirin

This liquid preparation of G. M. Hesse, of Saxony, Germany, intended as a protective application for cattle against mosquito pests, is supposed to be a concentrated decoction of bitter herbs, the more important of which may be absinthium. It is intended as a substitute for the ill-smelling French oil.

Iodofan

This is another of the new so-called antiseptics derived from iodine. It is said to be a product resulting from the action of iodine upon resarcin. Whether it has any antiseptic properties worthy of mention is not determined. Numerous analyses made of this substance, as found on the market, show that it is very variable in its composition. The nicely spun theory that it liberates iodoform in the secretions when applied as a dressing to wounds and abrasions, has not been verified experimentally. It is well to leave it alone until it has been determined what

it is and whether or not it has any germicidal properties.

Scopola vs. Belladonna

At one time, two to four years ago, the opinion was strong that Scopola was a most efficient substitute for Belladonna.

It appears, however, that manufacturers making preparations requiring Belladonna refuse to look upon Scopola as an equal, and consider it as an adulterant and not as a substitute. They declare that it does not have the properties of Belladonna. Even with the scarcity of the true article they refuse to employ the so-called bastard Belladonna.

In connection with the scarcity of Belladonna the question arises: Do all of the Belladonna plasters of the world contain Belladonna, and if so, how much? It would be most interesting if we could get the correct answer to this question.

Denatured Food Products

No doubt troubles, trials and complications arising out of the Pure Food and Drug Law will come thick and fast for a time. The principal source of these difficulties is clearly set forth in one sentence of the Secretary of Agriculture, which reads as follows: "It is clear that if the manufacturers, jobbers and dealers interpret the rules and regulations in the same manner as they are interpreted by this Department (of Agriculture), and follow that interpretation in their business transactions, no prosecution will lie against them." There is the rub. Who is right, I, we or the Secretary of Agriculture? Well, I guess we will just lock horns and settle it.

The second sentence of Regulation 34 (Section II) of the Pure Food and Drugs Act reads as follows: "Ship-

ments of substances ordinarily used as food products intended for technical purposes must be accompanied by a declaration stating that fact, and must be so denatured as to prevent their use as foods." Good! Gelatine is ordinarily used as food. I desire to use it technically, namely, in the bacteriological laboratory for the purpose of making microbic cultures. If it is first denatured so as to prevent its use as food it cannot be employed for making microbic cultures. Or does the statement "ordinarily used as food" apply to the festive and rather omnivorous microbe also? If we admit the microbe into our family circle when food is distributed, should we not also admit those handsome little insects which "ordinarily use" belladonna and aconite as "food products," and should we perhaps not modify our food list somewhat and add puffed roots of *Aconitum napellus* and of *Atropa belladonna* to our breakfast foods? I don't know.

No, it won't do to denature gelatine intended for bacteriological work with arsenic, strychnine, *spiritus frumenti* or prune juice. Nothing but the best and purest gelatine will answer the purpose.

ERGOT ALKALOIDS

There is still considerable uncertainty as to the exact chemistry and physiological activity of the active constituents of ergot. The crystalline alkaloid ergotinine is chemically closely related to the amorphous alkaloid ergotoxine. Ergotoxine is supposed to possess to a high degree the physiological properties of the drug. Wenzell, who began his studies of the active constituents of ergot about thirty years ago, is still continuing his chemical investigations.

COW'S MILK AND CHILDREN

Milk constitutes one of the best media for the development of microbes. This, coupled with the usual filthy way in which it is procured from the cows and the subsequent careless and filthy way of handling it, explains why this very important food for children contains such a large number of microbes. From a few thousand to over one million per cubic centimeter have been reported. It is true most of these are harmless, but one can readily foresee dread possibilities should a given milk supply be contaminated with germs of typhoid, tuberculosis or diphtheria. Numerous typhoid epidemics have been traced to the milk supply. The following safeguards against contracting diseases through the use of cow's milk should be observed:

1. Use milk from healthy cows only. Cows should be tested frequently for tuberculosis (tuberculin test) and anthrax (mallein, blacklegoids). It should be made a criminal offense to use or to permit the use of milk from sick cows, no matter what the sickness may be.
2. In case it is not definitely known that the milk is clean or comes from absolutely healthy animals, it should be pasteurized, not boiled. However, boiling is better than no sterilization.
3. There should be a law compelling all dairymen to employ the best modern milking machines, instead of the usual filthy milking by hand. The modern milking machines work admirably, and, when properly manipulated and cared for, contamination of the milk is impossible, unless the containers are not clean. The cleanest hand in the world carries numerous microbes, and the average hand that milks cows contains millions of them. Often the hands are fissured,

with sores and ulcers, with a liberal coating of stable filth and dirt.

Much of the high mortality rate of children among the poor of our large, crowded cities is due to the filthy milk supply. In such places milk with a preservative is better than the raw, filthy, unpreserved milk. It is not intended to argue in favor of the use of milk preservatives, but there is no denying the fact that many a child would not have died had it been given preserved milk. If the above safeguards are carried out, preservatives will be most objectionable, because unnecessary.

MEDICAL PRACTICE AMONG ANIMALS

The practice of medicine is not limited to the human species. Many of the lower animals employ, to them, popular remedies. Dogs and cats when they feel blue or ill-disposed eat blades of grass to induce vomiting. The sharp edges of the grass leaves act as a mechanical emetic, setting up a reversed peristalsis of the muscular coats of the stomach, by which means the animal gets rid of the indigestible substances. Cats have long used *Nepeta cataria* as a popular tonic. Bears and other animals have long known the anti-rheumatic virtues of hot springs, and have in fact taught the Indian the use of the sweat-house. Thick-skinned animals, as elephant, tapir, rhinosceros, and hog use the mud bath as a health-restoring agent, to drive away vermin and to cure skin diseases. Birds, domestic fowls and others of the feathered tribe, regularly employ the ash and dust bath to prevent and to cure skin diseases and to drive away and to keep away lice and other vermin. Nearly all animals, great and small, know the great value of cleanliness. Cattle and other ani-

mals appreciate the value of salt as a remedy to aid the digestion and assimilation of foods. Many animals frequently eat plants known to have laxative properties. The sacred ibis of Egypt is said to know the use of the water enema. In fact, when carefully summed up, it is shown that animals are quite consistent in the use of emetics, diaphoretics, and laxatives. There are no doctors or druggists among them who minister to the wants of others. Each animal treats itself as the occasion demands. We are inclined to doubt some of the stories of delicate surgical operations performed by birds on their fellows, but some quite authentic observations are recorded, as are also cases of deliberate murder and of suicide among other animals, as the carnivorae. Animals have many human traits after all.

BREVITY

Goethe is credited with having written the following complete novel, which is rather remarkable for its brevity:

Es war einmal ein Mann,
Er lebte.
Er nahm sich ein Weib,
Und starb.

(Translation.)

Once there was a man,
He lived.
He took unto himself a wife,
And died.

It is rather remarkable that this should bring to mind ministers and sermons.

Dr. Stuart McGuire in "Jour. A. M. M.," reports that he believes he has accidentally discovered in sparteine sulphate a drug of value to prevent post-operative suppression of urine. He believes it superior to drugs of the digitalis type, and gives it hypodermically in doses of from gr. 1 to gr. 2.

If the above observations are correct it gives the drug a more prominent place than it now holds. The pharmacology of this drug leaves us with the impression that there is room for much more good work.

Phosphorus

"Medicine" for December, 1906, contains an article by Alfred Gorden, which emphasizes the value of phosphorus in the form of glycerophosphates in the treatment of asthenia and allied conditions. It is probable that this drug and its preparations have not been used as frequently as its merits would warrant.

Codeine Phosphate

In the "American Journal of Chemical Medicine," codeine phosphate is spoken of as being a very valuable drug, particularly in the after treatment of abdominal operations. The following claims are made for it: (1) It does not check secretions like morphine; (2) the codeine habit is not easily formed; (3) it does not produce the distress in secondary nausea of other opiates. Dose for pain, gr. ss to gr. 1, repeated if necessary.

It is estimated that the nitrate fields of Chile are sufficient to last 350 years. Possibly by that time we won't need it.

IDAHO PHARMACEUTICAL ASSOCIATION

The first annual meeting of the Idaho Pharmaceutical Association convened May 20th in the council chambers of the city hall and was attended by about 50 representative druggists from all parts of the State, together with several prominent representatives of Eastern wholesale houses.

The morning session was largely taken up in discussing questions of interest to the profession, chief among them being the effect the new Sunday rest law would have on their business and also the license fee of \$200 charged for selling liquors. This subject was thoroughly discussed, and it was the general opinion that the license was too high, as the druggist did not care to engage in the liquor business any further than was absolutely necessary, and when whisky was sold for medical purposes only, as it was their aim to do, they believed the penalty too great.

Mr. Whitehead stated that the druggists of Boise were all very particular, especially concerning the sale of whisky on Sunday, although they generally received considerable blame on Monday when the records of police court were read and it was found larger than at any other time during the week. The cause of this, he stated, was because those drinking the beverage bought it Saturday night at the saloons and drank really more than they would if obliged to go to the saloon for it. Others spoke along the same lines, saying the conditions were the same where the Sunday closing law was enforced and on that day they were more careful about the sale of whisky than on any other.

The next matter was brought up by Mr. McCrum, who asked Mr. Whitehead to explain the fight the druggists

had at the last legislature in killing what he termed "the Ladies' Home Journal law," which provided for the labeling and selling of patent medicines.

Mr. Whitehead stated that the bill passed the house with but one dissenting vote, but he believed if the members had understood that the law did not conform with the national pure food law, as they were given to understand that it did, it would never have passed the house. After a hard fight in the senate, in which the local druggists were very active, he says, the bill was defeated and he believed it would be the sense of the association to appoint a committee to look after legislative affairs, as there was sure to be a bill regulating the sale of drugs at the next session, and he thought the druggists should take some part in framing it.

Mr. McCrum stated he thought it would be a good idea to have a representative in the legislature who was interested in the drug business. He praised the work done by Senator Van Iorns of Hageman, a prominent druggist, through whose efforts the bill was defeated.

Senator Van Iorns told some very interesting incidents in relation to the defeat of the measure. He said if the bill had passed, it would practically have put the druggists out of business, as it provided that all patent medicines would have to have a special label for this State, and if this was not done on a certain date, the proper authorities could enter their stores and sell the medicines and turn over the money to the State and leave the empty shelves to the proprietors.

Mr. Whittlesy of Pocatello stated

he did not believe in trying to control the legislature, but was glad the measure which was brought up at the last session had been defeated. He thought that the business should be controlled to a certain extent and especially the sales of cocaine and morphine, which were in many instances detrimental. He said he believed in legislative influence on broad lines and not all for the druggist or any other class of people.

Adjournment was then taken and the visitors were escorted to the Commercial club, where they enjoyed light refreshments and rested for a short time.

Upon invitation of the State chemist, Mr. Gibson, the members paid a visit to his offices in the State house and also called on the governor. At 3 o'clock they assembled at Thirteenth and Main Streets and enjoyed a trolley ride to the Soldiers' Home.

At 9:15 p. m., upon invitation of Mr. Myers, the members were entertained at the Orpheum Theatre, where a high-class vaudeville was arranged for their benefit.

The Visitors

The following is a list of those in attendance:

W. E. Bailey, president and manager of Nelden Judson Drug Company, Salt Lake; H. A. Knowles, treasurer Nelda Drug Company, Salt Lake; Mr. Hamus, State chemist of Utah and of the Short Line Railroad, Salt Lake; Charles Baker, Mackay; J. C. Baugh, J. J. Tracy, Hailey; Howard T. Davis, B. B. Davis, Emmett; Harry A. Duffy, Ontario, Ore.; D. O. Jones, Bellevue; S. K. Paxton, Mackay; M. D. Fleming and wife, Rexburg; R. W. Smith, Mountainhome; T. M. Starch, Shoshone; A. N. Sprague, Twin Falls; Fred Walker, Weiser; George W. Weldon, Milner; Clyde Thurston,

Tom Jones, Ben Reed, Payette; Mr. Rollins, American Falls; Mr. Wilson, Pocatello; W. B. Campbell, Paris; Mr. Cutter, Idaho Falls; F. E. Smith, R. W. McKnight, Mr. Hill, Mr. Pool, J. Forch, Nampa; A. Greelund, Caldwell; Dr. DeO. Poynter, Montpelier; Mr. Steves, Mr. Blake, Caldwell; L. L. Davis, Weiser; Mr. Schaffner, Mr. Kurtz, Meridian; J. J. Buchlet, R. A. Wells, Salt Lake; O. E. Silverthorn, Portland.

UNIONISM IN CALIFORNIA

A laborer from Michigan who had found non-membership in any trades union a handicap to securing steady employment in this State, had been working for the railroad at Fresno. Quitting the job he applied for his wages.

"I can give you a check," said the foreman, "but you will have to get it cashed at the store."

"What's the matter with the bank?" the laborer queried.

"Bank's closed; legal holiday."

"Bank always closed, seems to me," protested the laborer. "It was closed last time I worked here. They told me then it was a legal holiday. What holiday keeps the bank closed today?"

"This is Admission day."

"What's Admission day?"

"Admission day," explained the foreman, "is the anniversary of the day on which the State joined the Union."

"What? The whole State?"

Dr. J. C. Morfit, president of the St. Louis Medical Society, addressed the graduating class of the St. Louis College of Pharmacy at the commencement exercises held April 24th.

A Martyr to Science

Not long after his return from Stockholm, where he had been the last recipient of the Nobel prize for chemistry, Henri Moissan, the noted French Chemist, died February 21, aged 54. His fame began with research on biologic chemistry, and his isolation of fluorine and discovery of some of its combinations, a few of which are being used in therapeutics. He then perfected an electric furnace with which he produced temperatures of 3500 degrees C., and was able to distil gold, copper, iron, nickel, uranium and other metals, and to make microscopic diamonds. This furnace is merely a block of lime containing in a central cavity the electrodes from a powerful dynamo and the objects to be heated. The mass of the sun is known to be composed of the metals which he was able to distill at this temperature, and he consequently believed that the surface of the sun must be at a lower temperature than that which he was able to induce in his furnace. Incidentally he noticed one day in his furnace the formation of a grayish substance, which he recognized as calcium carbide, and found that it produced a gas on contact with water. This was the origin of the acetylene gas industry. He theorized that diamonds were the result of vaporization of carbon under immense pressure, and he realized these conditions by mixing carbon with iron, heating to 3,000 degrees C. and then plunging the mass into ice water. The outer layer hardened while the center was still molten, and as the metal within dilated as it cooled, the vaporized carbon inside was subjected to immense pressure, with the result that microscopic diamonds were found when the block was opened.

Moissan was professor of pharmacy at Paris, and titular member of the

French Academie de Medecine, while he was honorary member of numerous scientific societies in this country and abroad. The fatal weakness of the heart, complicating appendicitis, is ascribed by his friends to inhalation of gases in working with his furnace.

—Journal A. M. A.

The American Pharmaceutical Association will meet this year in New York City on September 2d. We hope to see the Pacific Coast have a better representation than it has ever had. You business men who make occasional visits to the East, combining pleasure with profit, arrange to make that trip this year so as to take in the A. Ph. A. It will be worth money to you to do it, and you will have the time of your life.

Danger in Suprarenal Preparations

Potts, "Journ. Am. Med. Asso.," gives warning against the careless use of the alkaloid of the suprarenal gland which has been "widely advertised and represented as harmless." Application of this substance to the mucous membrane causes intense shrinking in the caliber of the blood vessels, followed by a dilation beyond normal. While this condition is generally rectified, a tissue relaxed time after time loses its power of returning to normal and in the case of the vessel walls this means an increased blood supply. When this process is repeated, times without number, it must follow that a condition of persistent turgescence will present itself. The author has seen this condition in several cases. The patients were all hay fever sufferers and are now in worse condition than before the use of the drug.

THE BACTERIOLOGICAL IMPURITIES IN VACCINE VIRUS *

By Glenn M. Nelson, Phar. B.

The two objects of importance in this investigation were (1) to determine the number of bacteria present in the vaccine virus as it is dispensed to the practitioner, (2) the comparative estimation of bacteria in the dry ivory points and the glycerinated tubes.

For this work the virus was purchased on the open market, from reliable pharmacists who keep their stock under the required conditions of light and temperature; all data, such as limit date of virulence, date of purchase, laboratory number, etc., being duly recorded.

The essentials of the technique employed in determining the bacterial colonies were as follows:

In the case of the dry vaccine virus, a point was detached from the gelatine sheath which encloses it, and the virus was scraped off into a measured quantity of the sterile bouillon medium (4 cc.), by means of a small steel scraper, under aseptic conditions, observing the usual precautions to prevent bacterial contamination, and care being taken not to scrape hard enough to admit particles of paraffin or ivory into the medium. The scraped virus and the bouillon was then well triturated to break up adhering particles of the virus and to insure perfect disintegration.

A portion (1 cc.) of this trituration was then attenuated three times, and each quantity placed in a Petri dish containing a layer of the solid medium, so that Petri dish No. 1 represented one-fourth the total scrapings from one point; dish No. 2, one-twentieth, and

dish No. 3, one-hundredth of the total amount.

In the case of the glycerinated virus in the capillary tubes, the method of preparing the suspension was somewhat simpler: The virus was extracted from the tubes by means of the small rubber bulb accompanying each package, breaking both ends, slipping the bulb over one end, and forcing the contents into the medium, and finally cleaning the tube of the last adhering particles by repeated suction in the sterile medium. The attenuations were then made in the same manner as with the ivory points.

The plates were placed on a shelf in the laboratory at an average temperature of 23° C., and the counts were made usually on the fourth day (this time being required for the maximum development of colonies), excepting those experiments made in mid-winter (December 15—January 31), which, owing to the low temperature of the laboratory during the night, growth was retarded, and required a lapse of about nine days for the maximum development of colonies to take place.

The first series of counts were generally made from the second attenuation, with the exception of a few bright yellow and orange colored colonies in each Petri dish, perhaps the yellow pus organism, the great majority of colonies were of a uniform, grayish-white color. No attempt was made to identify the microbes isolated. The virus from manufacturer B. produced

* The research embodied in this paper was done in the bacteriological laboratory of the California College of Pharmacy, San Francisco.

a gelatin liquefying bacterium which slowly spread over the plate's surface and finally liquefied the whole contents.

Manufacturer A — Dry Points

Plate No.	Date of Experiment	Date of Count	Date on Package	No. of Colonies	Remarks
1	10, 13, '05	10, 17, '05	To be exchanged after 11, 20, '05	110	2 mould growths.
2	"	"	"	98	3 orange-colored colonies.
3	"	"	"	126	Predominance of gray-colored colonies.
4	11, 3, '05	11, 8, '05	To be exchanged after 12, 31, '05	89	"
5	"	"	"	96	"
6	"	"	"	103	"

Manufacturer B — Dry Points

Plate No.	Date of Experiment	Date of Count	Date on Package	No. of Colonies	Remarks
7	11, 17, '05	11, 22, '05	To be returned in exchange for new, 1, 31, '06	134	Gelatine liquefying bacteria present.
8	"	"	"	181	"
9	"	"	"	153	"
10	11, 24, '05	11, 29, '05	"	124	"
11	"	"	"	135	Moulds present (four colonies).
12	"	"	"	161	A few yellow colonies.

The second series of experiments were with the glycerinated tubes; after the first experiment it was ascertained that it was not necessary to make the usual series of attenuations, since plating the contents of one tube did not give more colonies than could be easily counted.

The first tubes examined developed nearly as many colonies as the same manufacturer's dry points, but it is quite evident that this fact is due to the "greenness" of the latter, that is, the virus not having been left in contact with the glycerin long enough to produce its full germicidal effects.

Manufacturer A — Glycerinated Tubes

Plate No.	Date of Experiment	Date of Count	Date on Package	No. of Colonies	Remarks
13	1, 8, '06	1, 17, '06	To be exchanged after 3, 31, '06	103	Light gray colonies having a white nucleus.
14	"	"	"	109	
15	"	"	"	96	No yellow or orange-colored colonies.
16	1, 30, '06	2, 8, '06	To be exchanged after 4, 30, '06	83	
17	"	"	"	73	
18	"	"	"	43	

Manufacturer B — Glycerinated Tubes

Plate No.	Date of Experiment	Date of Count	Date on Package	No. of Colonies	Remarks
19	2, 15, '06	2, 23, '06	To be returned for new, 3, 15, '06	40	Light gray colonies having a white nucleus.
20	"	"	"	31	
21	"	"	"	23	No green or orange-colored colonies present.
22	2, 25, '06	3, 3, '06	"	39	
23	"	"	"	22	
24	"	"	"	36	

When glycerin is mixed with vaccine virus, both the bacteria and the vaccine are ultimately destroyed, the glycerin producing its bactericidal effects by a process of slow dehydration (the germicidal power of glycerin being from 45-50%). The great majority of the non-sporulating bacteria and the ordinary pus cocci succumb to the action of the glycerin before the vaccine is destroyed. There is, therefore, an interval when the glycerinated virus may cause a typical "take," but will contain comparatively few foreign bacteria. It is evident that if the glycerinated virus is used before this interval, or, in other words, while in the "green" state, it is not superior to the dry point; and, if used after this interval, it is inert. Therefore, glycerinated virus is comparatively free of bacterial impurities if used just at the right time.

The time required for the proper aging of glycerinated virus is from four to six weeks, but it is highly probable that some products are placed upon the market before the expiration of that time, the manufacturer apparently placing too much confidence in the germicidal power of glycerin, as is evident from the comparatively greater number of microbes in the virus of manufacturer A.

Until recently the dry points were prepared by using the "lymph," which exudes from the site of the eruption of

the udder, after the crusts and epithelial cells have been removed. The sterile ivory points were coated with this serum by means of a brush, or the points were dipped directly into the exudate. At present, however, the dry points are mostly prepared from the glycerinated "pulp." The glycerinated virus is allowed to rest for a sufficient length of time to free itself from bacterial impurities, and is then dried upon the ivory points.

There is probably no vaccine on the market that is absolutely free from bacterial contamination, although the products of some manufacturers are remarkably pure. There is practically no difference between the glycerinated virus, dried upon the ivory points, and that in hermetically sealed capillary tubes—from a bacteriological viewpoint. But glycerinated virus on ivory points and in capillary tubes, when properly prepared and aged, is, undoubtedly, more free from microbic impurities than the dry points made from the fresh "lymph."

An extensive experimental study was made along this line by the United States Government in the Washington Hygienic Laboratory, by M. J. Rosenau and his staff of assistants. The work was done during the winters of 1901-02, and vaccine was examined from ten different manufacturers. The examination of some two hundred (200) dry points, during the winter of

1901, revealed an average of three thousand (3,000) bacteria per point. The report shows that a few of these points contained over fifteen thousand (15,000) and one as high as forty-four thousand (44,000) organisms. Of two hundred and forty tubes (240) of glycerinated virus examined, an average was found of one thousand seven hundred (1,700) bacteria per tube, and one as high as thirty thousand (30,000). The gross contamination of the vaccine during the winter of 1902 may be accounted for, in part, by the undue haste and accompanying carelessness incidental to supplying the increased demand for vaccine during that period. It was also stated in this report that no tetanus spores were found in either dry points or glycerinated tubes; however, Mr. Rosenau admits that this fact does not prove the absence of these spores in vaccine virus. Since no trace of tetanus was found in vaccine producing an average of three thousand (3,000) bacteria per tube, it would be assumed that a product yielding an average of but one hundred (100) organisms each would, in all probability, be free from this pathogenic microbe.

However, from the comparison of the figures from the Government's investigation with those of this report, it will be readily observed that the vaccine virus of today is far more nearly sterile, and thereby more reliable as a preventive of the virulent small-pox.

AMERICAN GINSENG

There are several ginseng plantations in the State. Results to date would show that the plants do very well in California. The largest plantation is at Sunnyvale. Attempts to obtain seed and living plants of the true Chinese ginseng have failed thus far.

KEEP TO THE TOP

It is not an easy thing to keep to the top; it is found much harder to keep there, than not to.

Some years ago, we visited an English cotton spinner, who lived like a nobleman, having become very wealthy by keeping at the top in his business. In speaking of the matter of competition he said: "I have only one competitor, and that is a firm in France. I have not one in Great Britain. I employ no drummers. I can sell all the cotton that I spin. I make nothing but the single yarn, out of which sewing threads and other threads are made." He then explained that the reason why he had no competition was, "that I and the firm in France make a yarn finer than any other manufacturers have been able to produce."

When asked for an explanation of this he said: "I know the quality of cotton—that is my business,—and I buy the best that the world produces, paying for it the highest price. I always have the best machinery. It would break your heart to see the fine machinery we discard, because we have found or invented something better. We sometimes spend money for new machinery, when other people think that what we had was good enough, but it is my policy to produce the best yarn in the world, and so I always have the best machinery."

This gentleman has become very wealthy through living up to this idea, always alert, always looking out for improvement, always determined to be at the top.

How many pharmacists there are who neglect to provide themselves with the newest devices, the newest effects and the newest ideas, and so they drift along in the old way without improvement, without advance-

ment, forgetting that when they are not going forward they are going backward, and so the more enterprising firms forge themselves to the top, leaving the others to take the second, third or fourth place.

It is surprising how unwilling some pharmacists are to buy a new pharmacopœia, a new national formulary, a new dispensary, even when they know that such works are indispensable to a progressive pharmacist.

Why Not Be a Top-Notcher?

A top-notch is simply an individual who works for the institution of which he is a part, not against it.

He does not wear rubber boots and stand on glass when he gets orders from the boss. He is a good conductor, and through him plays the policy of the house. The interests of the house are his—he is the business and he never separates himself from the concern, swabbing the greased shute, by knocking on the place or management.

A top-notch is never says inwardly, or outwardly "I wasn't hired to do that," nor does he figure to work exactly eight hours, and wear the face off the clock.

BELLADONNA CULTURE IN CALIFORNIA

Small experiments which have been extending over a period of four years have proven that Belladonna thrives well in certain portions of the State. The seed is slow to germinate (four to six weeks) and has a very low germinating power. Chemical tests show that the California plants are very rich in active constituents. The experiments to date will be reported upon more fully at a later date.

RECOMMEND PLANS TO IMPROVE AGRICULTURE.

University Regents Report on Work to be Done at Cost of \$30,000.
To War on Blights

Will Experiment Against Parasites on Trees and Plants.

Berkeley, May 17.—The plans of the University Regents in regard to the work to be done during the coming year at the plant pathological station in Southern California, for which the legislature has appropriated \$30,000, were disclosed in a report issued recently by the Committee on Agriculture of the Regents, the committee consisting of President Wheeler and Regent James E. Budd. In part the report is as follows:

The Committee on Agriculture recommends the adoption of the following general plan of work for the fiscal year beginning July 1, 1907:

The completion of the new laboratory building upon the site donated by the citizens of Whittier and the establishment in it of the apparatus and collections which have been successfully used in temporary quarters.

Continuation of laboratory studies and field experiments with the walnut blight, including observations as to local adaptability and blight resistance of a collection of varieties planted on the ground of the State School at Whittier.

Experiments with the use of fertilizers on walnut trees for which arrangement for co-operation have been made at the Cudahy ranch near Los Angeles.

Conclusion of the investigation of the brown rot of the lemon and the preparation of a report giving in detail the very satisfactory results attained in treatment of this disease on the ranch and in the packing house.

A general study of citrus fruit troubles, including "gum disease," "puffy oranges," "splitting of oranges," etc.

Tomato diseases and the influence of cultural treatment upon them.

Investigation of miscellaneous plant diseases which are continually being brought to the attention of the experts in charge of the laboratory.

Completion of the planting of citrus fruit collections and other growths desirable for culture studies at the branch experiment station at Riverside.

Pursuit of experiments with the use of fertilizers and other cultural treatment upon an adjacent area of bearing orange trees, which has been secured for the purpose, and in co-operation with individual growers in different localities.

Beginning of observations upon the relative value of different roots for citrus trees, of which a planting in variety has been especially made for this purpose.

Study of results in growing seedlings from trees showing product of distinctive characters, to determine influence of seed upon the future of varieties budded upon their seedlings.

Some years ago we overheard this conversation between a prominent wholesale grocer in this city and one of his customers: "Have you any cayenne pepper?" "Yes." "What price?" "Three and a half a dozen." "Have you any cheaper?" "Yes, we have some at \$1.85." "Same size?" "Yes." "What's the difference?" "One is pure, and the other—well, it's cheaper." "Well, send me three dozen at \$1.85." We wonder how they label the cheaper kind nowadays under the new law.

THE BOARD OF FOOD AND DRUG INSPECTION

Recently appointed by the Secretary of Agriculture consists of Dr. H. W. Wiley, Frederick L. Dunlap and Geo. P. McCabe. The duties of the board are set forth in the following order of Secretary Wilson, by which it is created:

There is hereby created in the Department of Agriculture a board of food and drug inspection. The members of the board will be: Dr. Harvey W. Wiley, Chief of Bureau of Chemistry, chairman; Dr. Frederick L. Dunlap, Associate Chemist, Bureau of Chemistry, and George P. McCabe, solicitor of the Department of Agriculture. The board will consider all questions arising in the enforcement of the Food and Drugs Act of June 30, 1906, upon which the decision of the Secretary of Agriculture is necessary, and will report its findings to the Secretary for his consideration and decision. All correspondence involving interpretations of law and questions arising under the law, not heretofore passed upon by the Secretary of Agriculture, shall be considered by the board. The board is directed to hold frequent meetings at stated times, in order that findings may be reported promptly.

In addition to the above duties the Board of Food and Drug Inspection shall conduct all hearings, based upon alleged violations of the Food and Drugs Act of June 30, 1906, as provided by Regulation 5 of the rules and regulations for the enforcement of the Food and Drugs Act, approved October 17, 1906.

REGISTRATION OF APPRENTICES

The California Pharmacy law makes it the duty of all registered pharmacists, when they take an apprentice into their employ, to report this fact

to the Board of Pharmacy, with such facts regarding his schooling as the board may require. It also makes it the duty of the board to establish a standard of qualifications for such apprentices. We find that up to the present time the total number of apprentices registered has been 189; average age of applicants, 19; number who registered as soon as their experience began, 7.

It would seem from this that very few have deliberately engaged in service in drug stores with the avowed purpose of becoming pharmacists. They have drifted into the business. This will probably account for the large number whose education has been limited. If those who took lads into their employ as learners or "apprentices," would see that they have a high school education before giving them employment, pharmacy would soon be purged of illiteracy.

We have just received the annual volume containing the Proceedings of the American Pharmaceutical Association for 1906. Many of the papers have already been published in the pharmaceutical journals, but there are others too long, or too costly to illustrate that will still be new to the readers. Then there is the Report of the Progress of Pharmacy for the year, which alone is worth more than a year's membership dues. By the by, are you a member? If not, join. It costs just \$5.00 a year.

THE DISPENSATORY OF THE UNITED STATES OF AMERICA

By Dr. Geo. B. Wood and Dr. Franklin Bache; nineteenth edition, thoroughly revised, largely rewritten, and based upon the eighth decennial revision of the United States Pharmacopœia; by

H. C. Wood, M. D., LL. D., Professor of Materia Medica and Therapeutics in the University of Pennsylvania, President of the Convention of 1900 for the revision of the Pharmacopœia of the United States, Member of the National Academy of Science; Joseph P. Remington, Ph. M., F. C. S., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, Chairman of the Committee of Revision of the Pharmacopœia of the United States of America, and Samuel P. Sadtler, Ph. D., LL. D., Professor of Chemistry in the Philadelphia College of Pharmacy, Member of the Committee of Revision of the Pharmacopœia of the United States of America; assisted by Albert B. Lyons, M. D., Member of the Committee of Revision of the Pharmacopœia of the United States of America, and Horatio C. Wood, Jr., M. D., Demonstrator of Pharmacodynamics in the University of Pennsylvania. Philadelphia; J. B. Lippincott Company.

The appearance of a new edition of the old and reliable United States Dispensatory has been for many years an event of great interest to pharmacists and physicians. The present issue is more than usually welcome by reason of the great interest that now attaches to the United States Pharmacopœia and National Formulary, which are studied more than ever before. This is in part due to the fact that under the new Pure Food and Drugs Act these works are made the standard of quality and strength, and also to the fact that there are more persons actually **studying** pharmacy and with more earnest desire to really understand it than there were in former years. In the short time we have had to examine the work, we are most favorably impressed by it and believe that those who turn to its pages for information on the thousands of topics of which it treats will not be disappointed. While pharmacy has been advancing, pharmacists have been growing in intelligence and more anxious for definite information. This leads them to make frequent use of text and reference books, among which the United States Dispensatory has for years occupied a high rank.

It is practically three-quarters of a century since the first issue made its appearance, and during all these years it has been so ably edited that it has retained its high position among works of its class.

The Nineteenth Edition is based upon the Eighth Decennial Revision of the United States Pharmacopœia, and is essentially a commentary upon that work. But in addition to the Pharmacopœia, it contains in abstract the Third Edition of the National Formulary, with some notes thereupon. It also contains the Food and Drugs Act of 1896, with rules and regulations for the enforcement of the same, as issued by the Secretary of the Treasury, Secretary of Agriculture and Secretary of

Commerce, in 1906. The large number of additions and corrections to the United States Pharmacopœia (Eight Revision), which were issued on May 1, 1907, are also given. These additions and corrections have been made by the Committee of Revision in response to urgent requests for modifications of the official tests made necessary by the adoption of the Pharmacopœia as the standard of strength, etc., in the aforesaid act.

We are pleased to note as improvements the printing of the text in double column and the use of the diacritical marks giving the pronunciations. We are also pleased to see the index of diseases at the beginning of the work, so that it is not confused with the general index, which appears in the usual place at the end. Some idea of the vast scope of the work may be gathered from the fact that the index alone occupies one hundred and twenty-four pages printed in small type, three columns to a page.

This work is always spoken of as the United States Dispensatory, and, although that is not the name on the title page, it is the one printed on the back of the book. We think the authors make a mistake in printing the preparations and formulas of the British Pharmacopœia in the body of the work in the same type as the matter relating to the United States preparations. In some cases the comments relating to a British preparation may easily be supposed by a student to apply to the American, as for instance: Page 713, we read under the head of "Liquor Ferri Chloridi U. S. (Br.)": "An aqueous solution of ferric chloride which should contain not less than 29% of the anhydrous salt, corresponding to 10% of metallic iron. (U. S.) 110 minims contain 22½ grains of iron; 100 cubic centimetres contain 22.5 grammes (Br.)" It is easy for the student to infer that the language used to indicate the strength of the British preparation is only another way for expressing the strength of that of the U. S., notwithstanding the fact that the letters U. S. and Br. are added. As a teacher, we know that students often do thus misunderstand matters in this Dispensatory.

Again, in other cases the comments upon the processes of the two preparations are mixed, as on Page 702-3 under "Liquor Ammonii Acetatis," after giving both formulas, the United States in metric with alternative avoirdupois weights and imperial measure (which of itself is enough to confuse a student); then comes, first, a comment on the U. S. P. process with suggestions for another way of making the same preparation, and then formulas and comments on the British process. As the work is used largely by American students, it would be of more value to them if the British process and comments thereupon were printed in smaller type. The eye would at once detect the difference.

We think, too, it would be an advantage to the work if the botanical descriptions of the plants were also printed in smaller

type. For instance, page 568, "Foeniculum." Fully half a page is devoted to a botanical description of the plant, which is not used in medicine, the only part used being the fruits and volatile oil. We would not have these botanical descriptions left out, because the Dispensatory is a book of reference, and such information is sometimes needed, but as a text-book for the use of students it would be much more helpful if the suggestion here made had been carried out. The work bears every indication of having been almost entirely rewritten. If such be the case, it would not have been any great expense to make this change in type.

We predict for the work a phenomenal sale when the colleges open next autumn.

THEODORE D. BUHL.

Theodore D. Buhl, president of Parke, Davis & Co., died suddenly of apoplexy April 7, aged sixty-three years. Mr. Buhl was born at Detroit, August 20, 1844. He was not a pharmacist, his business career having begun with a clerkship in the hardware business of his father and Charles Ducharme. In later years this firm became Buhl, Sons & Co. At the time of his death the subject of this sketch was the president of the company. He was also an officer in a number of metal manufacturing concerns and of several financial institutions of Detroit.

Mr. Buhl became connected with Parke, Davis & Co. as a director a little over ten years ago, and was elected to the presidency at the time of the reorganization of the firm some years subsequently. At a meeting of the directors of the company held shortly after his death, memorial resolutions attesting the great loss of the company and extending condolence to the bereaved relatives of the deceased were adopted.

New York City now has an anti-cocaine ordinance. On April 22d, in the Court of Special Sessions, Charles Hitch was fined \$250 for disregarding the provisions of the new law.

THE NEW HEAD OF PARKE, DAVIS & CO.

From the "Druggists Circular" we learn that Frank Gibbs Ryan, secretary and vice-president of Parke, Davis & Co., was elected president of the company at a meeting of the directors held April 16th. Mr. Ryan succeeds the late Theodore D. Buhl, whose death occurred recently. Mr. Ryan has been especially well fitted for this position by a life-long training in the many phases of pharmacy as a profession and a business, and a personal acquaintance with the conditions of pharmacy in all parts of the globe, the result of recent extensive travels.

Mr. Ryan was born at Marcellus Falls, N. Y., December 26, 1861. His early education was received at Elmira where, at the age of fifteen, he entered upon an apprenticeship in pharmacy. In 1880 he became affiliated with Brown & Dawson, of Syracuse, with whom he remained until 1882, when he matriculated at the Philadelphia College of Pharmacy. He was graduated in 1884 and became assistant professor of pharmacy under Prof. J. P. Remington, and also had charge of an optional course in commercial training; in addition to these duties he lectured on pharmacy at the Women's Medical College.

Mr. Ryan became a member of the American Pharmaceutical Association in 1892, and has always taken a prominent part in its affairs. He was secretary of the scientific section in 1893, and several times the chairman of the committee on weights and measures.

Prof. Ryan left the Philadelphia college in 1900, to become associated with

Parke, Davis & Co., as chief pharmacist. Before making the change the professor was talking to an old friend, who had had much experience as a teacher, as well as in commercial pharmacy, and asked him what he thought of it. The friend advised him to quit teaching and go in for commerce, predicting for him a brilliant future. In speaking of the matter later to the present writer the old friend remarked that "Ryan blushed like a schoolgirl when I said he might in time become a director and maybe an officer of the company."

On the death of the lamented William M. Warren in 1903, Mr. Ryan—who says he left his title of "Professor" at Philadelphia—was elected to succeed him on the board of directors. In 1905 he was made secretary and later vice-president.

A druggist about fifty miles from San Francisco had, until recently, a clerk in his employ who did not prove satisfactory. He wanted to discharge him but didn't know how to go about it, because the clerk had a family to support. Becoming desperate he told him one day that business was so poor and he had so many bills to meet that he didn't know how he is going to manage to keep up. The clerk, after thinking a while, decided he would quit, and asked him for a letter of recommendation. Like all druggists, he was very conscientious and considerate of the feeling of others; he couldn't recommend him, yet couldn't refuse, so he wrote the following letter: "The bearer of this was in my employ two weeks and quit, and I am satisfied."

CALIFORNIA PHARMACEUTICAL SOCIETY

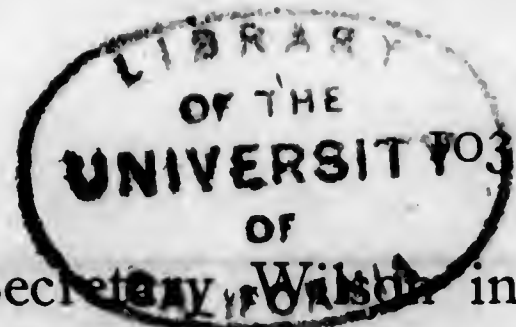
After remaining inactive for a number of years the California Pharmaceutical Society has been revived, and it now bids fair to take its position among the most active organizations of its kind. In response to the circular letters that were sent to the druggists throughout the State, Secretary F. W. Nish has received one hundred applications to date. This leaves upwards of seven hundred letters yet to be heard from. Those who responded wrote most encouragingly, and all are very enthusiastic over the prospects of the society's revival.

A committee is now at work on the constitution and by-laws, and will be ready to report in a few days. A meeting of the society will probably be held during the summer, at which meeting subjects of interest and importance will be discussed. This will afford an excellent opportunity to take some action in regard to the coming meeting of the Pacific Coast Pharmaceutical Association, which is scheduled to meet at San Francisco in July, 1908. Let us all pull together and make our society one of the most active in the United States, and thus demonstrate that the California pharmacists are abreast of the times.

The following persons have applied for membership to date:

C. J. Abraham, San Francisco; E. N. Ayers, San Francisco; Wm. Atwood, Clovis; Chas. W. Avery, Yreka; K. B. Bowerman, San Francisco; O. A. Brehler, Sanger; J. H. Burnham, Folsom; Chas. R. Blake, Atchison; Edward L. Baldwin, San Francisco; Theo. V. Brown, San Jose; F. E. Baskette, San Mateo; John Beckwith, Los Angeles; C. F. Berthoff, Los Banos; R. F. Billings, Corona; W. J. Balfrey, Siskiyou; Bowman & Co., Oakland; Robt. H. Bohmansson, Arcata; May E. Birch, Orland; H. R.

Baum, Fort Bragg; W. W. Campbell, Sausalito; H. B. Christiansen, San Francisco; A. J. Coster, Plymouth; J. B. Cunnane, Santa Ynez; W. E. Calahan, Antioch; J. W. Campbell, Davisville; J. H. Dawson, San Francisco; Chester Dusy, Selma; H. G. Dean, Los Angeles; Byron F. Dawson, San Luis Obispo; T. M. Day, San Rafael; Wm. Englund, Marysville; J. H. Flint, San Francisco; W. H. Farley, San Francisco; W. F. Fairchild, Placerville; Emile A. Ferrea, San Francisco; F. A. Grazer, San Francisco; A. B. Gilliland, Cottonwood; John D. Gray, Stockton; Paul T. Hahman, Santa Rosa; Francis M. Hilby, Monterey; J. H. Horsnyder, Santa Cruz; Holden Drug Co., Stockton; S. F. Johnson, Walnut Creek; E. M. Kimberlin, Kingsburg; Geo. P. Keller, Black Diamond; Frank S. Kelly, San Francisco; C. F. Keller, Santa Rosa; A. E. Krosby, Yuba City; Fred. Kolliker, Sacramento; C. A. Lutz, Irvington; A. L. Lengfeld, San Francisco; A. L. Leber, Oakland; Fred. I. Lackenbach, Los Gatos; W. I. Moore, San Francisco; J. G. Munson, San Jose; David C. Moore, Los Gatos; S. E. Morse, Dixon; Myers & Hedges, San Bernardino; Fred A. Mueller, Berkeley; J. J. Mahoney, San Francisco; A. McBoyle, San Francisco; S. A. McDonnell, San Francisco; McKown & Mess, Livermore; W. R. McNair, Glendora; A. L. McKay, Lemoore; F. W. Nish, San Francisco; Osgood Bros., Oakland; Francis S. Ott, Sacramento; A. A. Paul, Crockett; N. A. Pellerano, San Jose; Hiram Pond, Hollister; T. F. Phillips, Grass Valley; Fred. Rauscher, Laton; W. P. Redington, San Francisco; Oscar Robinson, Colusa; R. Reid, Haywards; W. M. Searby, San Francisco; H. M. Simmons, San Francisco; Mark A. Sawrie, Selma; C. W. Smith, San Francisco; Val. Schmidt, San Francisco; Thos. A. Spivey, Rio Vista; Chas. G. Stinson, Arbuckle; M. B. Sneden, Niles; Skinner, Duprey Co., Eureka; A. W. Smith, Templeton; R. C. Silvernale, Santa Monica; Fred. A. Sanderlin, Oakland; I. Tobriner, Oakland; W. G. Taylor, San Francisco; H. Vandre, San Francisco; A. D. Walsh, Redwood City; Thos. Worth, Sebastopol; Otto. Weihe, Sacramento; W. A. Wishart, Oakland; F. S. Wedemeyer, Hemet; H. E. Yardley Co., Sacramento.



**San Jose's City Council Prohibits
Liquor Selling by Druggists, Ex-
cept on Prescriptions**

The following ordinance has just been passed by the City Council of San Jose. It is unique inasmuch as it appears to affect nobody but druggists. The penalty for violating it is "not exceeding \$100 or imprisonment for 30 days."

Licenses are issued to saloon-men for \$400 a year, payable quarterly.

**An Ordinance Regulating the Sale of In-
toxicating Liquors in Drug Stores and
Providing a Penalty for Its Violation.**

BE IT ORDAINED BY THE MAYOR and Common Council of the City of San Jose, as follows:

Sec. 1. No beer, wine, gin, rum, brandy or whisky in quantities less than one quart or to be drank on the premises shall be sold in any drug store, pharmacy or chemists shop within the limits of the City of San Jose, unless the person purchasing such liquor shall upon the occasion of each separate purchase give to the vendor in such drug store, pharmacy or chemists shop a prescription signed by some regularly licensed physician of the State of California, which said prescription must be immediately taken up by such vendor and preserved in a book which shall at all times be open to inspection of the members of the police force of the City of San Jose.

Sec. 2. Any person who shall violate any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding one hundred dollars, or by imprisonment in the City Prison of San Jose for a period not exceeding thirty days.

Sec. 3. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

Sec. 4. This ordinance shall take effect and be in force on and after the 1st day of July, 1907.

Passed this 20th day of May, 1907, by the following vote:

Ayes, Councilmen Brohaska, Carey, Mathewson, Pieper.

Noes, Councilmen, None.

Absent, Councilmen, None.

ROY E. WALTER,

City Clerk of the City of San Jose.

The decision of Secretary Wilson in regard to the use of the word "compound" in labelling preparations so as to comply with the law is interesting. It is in part as follows:

In no case can a preparation be named after an ingredient or drug which is not present. The word "compound" should not be used in connection with a name which in itself, or together with representations and designs accompanying same, would be construed as a form of misbranding under the act.

It is held that if a mixture of drugs is named after one or more but not all of the active medicinal constituents (not vehicle) present in a preparation, the word "compound" can be used in connection with the name,

(a) Provided the active constituent after which the product is named is present in an amount at least equal to that of any other active medicinal agent present. Example: If it is desired to make a mixture consisting of oil of sandalwood, balsam copaiba, and castor oil, and call this product "Oil of Sandalwood Compound," the oil of sandalwood should constitute at least 33 1/3 per cent. of the entire mixture.

Or (b) provided the potent active constituent after which the product is named is present in sufficient amount to impart the preponderating medicinal effect. Example: If a product is named after the active constituent, strychnine, the strychnine or one of its salts should be present in sufficient amount to produce the preponderating medicinal effect of the preparation.

Or (c) provided the complete quantitative formula, as outlined in the United States Pharmacopœia and National Formulary, be given on the principal label.

KENTUCKY BOARD ACTIVE

An inspector of the Kentucky Board of Pharmacy has been very active of late in Warren and adjoining counties. According to a newspaper report he purchased morphine from many druggists who did not comply with the law governing the sale of that article.

Among the Colleges

The Graduating Exercises of the California College of Pharmacy formed a part of the commencement exercises of the University of California, which took place at Berkeley on Wednesday, May 15th. The great day, to which 481 persons, mostly in the springtime of life, had been looking forward for years, had at last arrived. Many who set out with them as freshmen in the various colleges had fallen by the wayside, some by reason of sickness, others from financial reverses, others from various causes, and some, it must be confessed, if the truth be told, from incapacity or indolence. But here are the elect, the four hundred who have persevered, and are now to receive the honor given only to them that overcome. Promptly at 2:45 p.m. the long line of candidates for graduation marched in pairs, all decked in academic caps and gowns, from the driveway in front of the North and South Halls up to the Greek Theatre, where, opening out into two columns, they stood with hats off as the Governor of the State and the President of the University, followed by the Board of Regents, invited guests and Faculty passed into the enclosure and took their seats on the platform, the graduating classes taking their seats in the center of the theatre, immediately in front of and facing the platform.

After three remarkably able addresses by members of the graduating classes, and an earnest address by Benjamin Ide Wheeler, President of the University of California, Governor Gillett gave the military commissions, and President Wheeler conferred the degrees. Those in pharmacy were as follows:

Pharmaceutical Chemists.

Charles Frederick Barnes, Healdsburg; Ira Phipps Brooks, Red Bluff; Theodore Vincent Brown, San Jose; Christian Alva Buck, Selma; May Enid Cardwell, Oakland; Anthony Richard Fitzgerald, Ogden, Utah; John Guehring Jr., San Francisco; Frederick August Hund, Ross Valley; Walter Minor Hunter, Los Gatos; Elmer Jacob, Palo Alto; Thomas Clement Kenneally, B. A., Oakland; Albert Paul Komsthoft, Jr., San Francisco; Frederick Clinton Lang, Oakland; Mabell Ethelyn Merriam, Fruitvale; Benjamin J. Miller, Davenport, Wash.; Clyde Edward Moo-
mau, Santa Ana; La Vergne James Moore, San Jose; Harry Dukes Morgan, Avalon; Harvey Buteau Mount, Oakland; Frederick George Nopel, Oakland; Albert Theodore Renner, Anaheim; Elliott Edmund Selzer, Menlo Park; Frank Glyde Shepherd, Ontario; Horace David Stewart, Leadville, Colo.; Robert Morrison Stevenson, San Francisco; Robert William Swanton, Marshfield, Oregon.

The Degree of Bachelor of Pharmacy (California College of Pharmacy) was conferred upon Clarissa May Roehr, Ph.G., Oakland.

BANQUET TO THE GRADUATING CLASS

The annual banquet given by the Alumni Association of the California College of Pharmacy to the graduating class took place at the Cosmos dining rooms on the evening of May 14th.

The banquet room presented a brilliant spectacle with its tables decorated with huge bouquets of carnations and greens.

A delicious repast was indulged in, while the orchestra rendered numerous entertaining selections, and these, intermingled with many college yells, made the evening pass only too quickly.

Among those seated around the festive board were G. E. Bacon, President of the College; Prof. W. M. Searby, Dean of the College; Pro. F. T. Green, Prof. Albert Schneider, Dr. H. B. Carey, Dr. Josephine Barbat, Dr. G. G. Burnett, Dr. H. M. Simmons, President of the Association, F. W. Nish, I. Tobriner, J. H. Taggart, Miss H. Patterson, Mr. and Mrs. Phillip, C. Abraham, Miss Clarissa Roehr and the members of the graduating class.

Dr. H. M. Simmons officiated as toastmaster. H. D. Stewart responded to the "Class of 1907"; Misses Cardwell and Merriam gave the "Class Prophecy"; E. E. Selzer spoke of "My Experience in College"; R. Stevenson of "The Ideas of the Class of 1907"; Prof. W. M. Searby of "How I Cribbed My Way Through College." The professor's way proved to have been by hard and faithful work. He said that one definition given in the Century Dictionary of the word "crib" was to steal, and he related how he stole time from the hours usually devoted to sleep and self-indulgence. Having made up his mind when thirteen years of age to be a druggist, he set himself sedulously to study Latin and mathematics, continuing these studies after he had left school. Afterwards, when studying botany, he had to rise very early in the morning, walk for one, two or three hours before opening the store at 7 a. m. He thus acquired the habit of doing with six or seven hours' sleep, and this habit became fixed for life.

Prof. F. T. Green responded to "Molecules I've Met"; H. D. Morgan

to "Talking About Jokes"; Miss C. Roehr to "Our First Lady Bachelor," and President G. E. Bacon spoke of "The Duty of an Alumnus."

After a few closing remarks by Dr. Simmons the banquet concluded with the usual college yell, every one present voting the affair a huge success.

At a business meeting held during the evening the following graduates were elected to membership in the association: H. B. Mount, H. D. Stewart, Mr. and Mrs. Phillip, H. D. Morgan, T. C. Kenneally, B. J. Miller, R. W. Swanton, W. M. Hunter, F. A. Hund, R. M. Stevenson, L. V. J. Moore, A. P. Komsthoeft, F. C. Barnes, F. G. Shepherd, I. P. Brooks, F. C. Lang, E. E. Selzer, John Guehring, Jr., and A. R. Fitzgerald.

ALUMNI NOTES

R. G. Whitlock, '01, P. H. Lane, '02, and A. S. Musante, '03, were among the graduates of Cooper Medical College.

J. H. Horgan, '02, is manager of Tobriner's Pharmacy, Seventh and Market streets, Oakland.

G. M. Nelson, Phar. B., '06, has been quite seriously ill. He is now on the road to recovery.

L. A. Schroeder, Phar. B., '03, recently graduated from the College of Medicine, University of Southern California.

J. Steen, '02, is with Tobriner, Oakland.

R. H. Rogers, '04, is at Newman.

Miss Clarissa M. Roehr, who has just received her Bachelor Degree, is the pharmacist at the Hospital of the University of California.

J. W. Balfrey, '03, is doing well at Etna Mills.

J. W. Enright, '01, is now in the real estate business.

Otto Weihe, '89, of Sacramento, was visiting friends in the city.

J. V. Leithold, '90, is one of the leading druggists of Woodland.

I. Tobriner, '93, was elected a member of the Board of Directors of the California College of Pharmacy.

Mr. F. G. Shepherd, '07, is employed at the Sunset Pharmacy, corner Ninth avenue and I.

Miss M. Enid Cardwell, '07, is the chemist recently employed by the Collins Bros.' Pharmacy, Washington and Twelfth streets, Oakland.

H. D. Stewart, '07, is still with the Bowerman Pharmacy.

OREGON AGRICULTURAL COLLEGE

The commencement exercises of Oregon College of Pharmacy were held in the armory of the institution, at Corvallis, on Wednesday, June 12.

The following are those who finished their course in pharmacy this year:

E. E. Applewhite, Roseburg, Ore.; C. A. Ingle, Wasco, Ore.; L. B. Russell, Baker City, Ore.; L. C. Rogers, Astoria, Ore.; J. E. O'Neel, Tillamook, Ore.; N. F. Reed, Burns, Ore.; C. E. Cropp, Richland, Ore.; E. W. P. Harding, Gaston, Ore.; R. E. Nichols, Portland, Ore.; L. F. Kelty, N. Yamhill, Ore.; I. E. Barrett, Hillsboro, Ore.; F. R. Miller, Junction, Ore.; P. C. Rinehart, The Dalles, Ore.; Mary Elgin, A. K. Berman, L. F. Darby, C. S. Chappell, Corvallis, Ore.; C. B. Smith, Carson, Wash.; C. O. Dicken, Santa Monica, Cal.; L. W. Bundy, Union City, Ore.; O. L. Spires, Myrtle Point, Ore.; Stanley Hammel, Waldport, Ore.

A special examination at the hands of the State Board of Pharmacy was

given these students on June 10, at the college. The results of this examination will determine the two students who shall receive the Laue prizes, as well as determine who shall receive registration certificates in Oregon, and will be published in the next issue of this journal.

Graduating Class of College of Pharmacy, University of Southern California

W. F. Killian, Ray B. Graves, C. L. Parsons, Fay Leonard, H. F. Fuller, Mr. Noxon, all residing in Los Angeles.

Northwestern University Alumni Meeting Postponed.—Because of existing conditions in San Francisco the banquet planned for the Northwestern University Alumni has been postponed. It is the hope of the committee that conditions will soon be more favorable. If not, arrangements will doubtless be made to hold the banquet elsewhere.

Business Meeting of the Alumni, C. C. P.

A meeting of the trustees of the Alumni was called to order by President Simmons, Friday morning, May 17th, at Abraham's Pharmacy. Trustees Simmons, Nish, Tobriner, Abrahams and Miss Roeher were present. The reports of the secretary and treasurer showed the society to be in a flourishing condition. A vote of thanks was extended to the banquet committee, F. W. Nish and C. J. Abrahams, for the successful manner in which they accomplished their work. Owing to the destruction of the old certificates of membership it was decided to have new ones engraved, the style to be the same. This matter was entrusted to the care of F. W. Nish. In due time notice will be sent out so that all members who wish may procure these new certificates.

Drug News

CHANGE IN SOUTHERN WHOLESALE DRUG HOUSE

Frederick W. Braun is to retire from the F. W. Braun Company, disposing of his interest to L. M. Brunswig, who for several years has been the first vice-president of the company.

Mr. Brunswig will take charge of the wholesale drug business that has been an important part of the Braun establishment and will devote his attention to the building up of that trade.

Mr. Braun is to take over the portion of the business pertaining to supplies for miners, assayers and chemists.

The name of the drug house will be the Brunswig Company, and a five-story concrete building is in course of construction on New High street, adjoining the present building of the Braun Company at Nos. 501-505 North Main street. Mr. Brunswig still retains an interest in a New Orleans wholesale drug house.

Since associating himself with the Braun Company, he has been extremely active and successful in building up the trade, and has taken a keen interest in the affairs of pharmacists. He was instrumental in establishing a school of pharmacy in Los Angeles.

The house of the F. W. Braun Company is the biggest establishment of its kind on the Pacific Coast—probably the largest west of Chicago. It handles drugs, and supplies for miners, chemists and assayers. There are branches in San Francisco and San Diego.

Into the wholesale drug business Mr. Brunswig will put large capital, while Mr. Braun will do the same for the mining supply industry to which he will devote his attention.

Los Angeles

Quite a commotion has been created here by the State Board, who have made a number of arrests for violation of the pharmacy law. Some of these were for selling poisons without proper precautions as defined in the law, others for allowing unregis-

tered persons to sell drugs and poisons, and to dispense prescriptions. Among the more flagrant violations, we quote the following from the Los Angeles "Times" in the case of Trevino & Bozza, whose clerk, a young boy named McHatton, was unregistered. Neither of the proprietors is registered.

"When I was employed, I told them that I had no certificate from the State and was not entitled to fill prescriptions," testified McHatton. "I was told that all I had to do was to obey the instructions of the chief clerk at the place, a man named Hadley, and that it was not necessary for me to have any certificate so long as I obeyed his instructions.

"Hadley was intoxicated most of the time. When a man would enter the store and ask for a poison or narcotic, Hadley would tell me to look the man over and, if he appeared to be a man of common sense, to issue the drug to him. In that way if a man came in and asked me for carbolic acid or laudanum I would look at him and if he appeared to be rational and sane, I would give him the poison on the supposition that he did not want it for any harmful purpose. In one instance a man came in and asked for laudanum. I knew, of course, that laudanum would produce death if a sufficient quantity was taken, but the man said he wanted it for external use and I gave it to him. Frequently Hadley would be there, and he would give me orders to sell the drug. But most of the time Hadley was in such a condition that I had to attend the business.

"I had been told that my chief duty was to act as interpreter for the Mexicans and Italians who patronized the place, but this soon became merely an

incidental duty. I was studying to be a druggist at the time and it was good practice for me.

"Finally it became so that Hadley did not attend to any of the business and I sold the drugs. On many occasions, as told by Mr. Whilden, I would sell the poison under the orders of Hadley, who stood by. That is the truth about the way the poisons were sold and I have concealed nothing."

Several other witnesses testified that Hadley was intoxicated most of the time, and Judge Chambers suggested that Hadley be brought into court. He was told that Hadley had disappeared at the time of the arrest of McHatton and had not been seen since.

C. M. Bozza, proprietor of the place, testified that he knew that Hadley was a heavy drinker, but that he did not remember of ever having seen the clerk completely under the influence of liquor. He stated that many times when Hadley was away and McHatton could not fill prescriptions, the customers were sold patent medicines.

"It is my opinion," said Judge Chambers, "that these men knew they were violating the law, and that keeping McHatton in the place to sell the drugs under Hadley's direction was a mere subterfuge to defeat the State law. I find the defendant guilty and fine him in the sum of \$40, with the alternative of spending that length of time in jail."

Secretary Whilden is reported to have stated that "Out of thirty-three stores visited, I was able to procure 'dope' in sixteen of them, it being sold in each case unlawfully." He reports, however, that he was unable to procure evidence against any of the following firms:

The Auditorium Pharmacy, Fifth and Olive streets; Godfrey & Moore, No. 108 South Spring street; Sof-fel Drug Company, No. 2200 Pico

street; Chambers & Leland Drug Company, Fifth and Main streets; Boswell & Noyes, Third street and Broadway; Sun Drug Company, stores No. 1 and No. 2; McLain Drug Company, Main and Spring streets; Figueroa Pharmacy, No. 1269 Figueroa street; Off & Vaughn, No. 352 South Spring street; Kino Bros. & Summers, No. 221 East First street; Van Horn's Drug Store, No. 247 East First street; Heinzeman Bros., No. 108 West Third street; Blair Hill, Jefferson and Normandie streets; Owl Drug Company, Fifth street and Broadway and No. 320 South Spring street, and the Natick Pharmacy, No. 106 West First street."

Another account is as follows:

It has been found to be a common practice among the smaller druggists to leave their stores in charge of almost any clerk whom they could employ cheaply, whether the clerk was registered or not. Most of the clerks had had not the slightest training for such a business, although they were frequently called upon to dispense drugs which, if improperly taken, would produce quick death. Some of the proprietors themselves were not registered pharmacists and knew nothing about prescription work, but depended upon their subordinates.

"One man admitted that when he left his store he told his clerk to fill prescriptions by giving small vials from the contents of larger bottles containing harmless patent medicines, and said that he had designated what patent medicines were to be used. He said that no harm could come to the purchaser because the medicines he listed contained no poison.

"Another druggist had a prescription standing, and filled virtually all the orders which came from physicians by giving his customers some of his ready-

made 'medicine,' which contained a few harmless ingredients."

How long has this kind of thing been going on?

DRUGS, OILS AND PAINTS CONSUMED BY FIRE IN LOS ANGELES

A fire broke out among the chemicals stored by the Western Wholesale Drug Company at Los Angeles recently, in a building filled with drugs, paints, oils and other highly inflammable materials. The heat was intense and the flames shot hundreds of feet in the air, illuminating the entire business section of the city. After burning three hours the flames were finally extinguished at seven o'clock.

The losses are as follows: P. J. Douglas and Edward Davies, owners of the building, \$25,000, or about half the value of the building, covered by insurance; P. H. Matthew Paint Company, \$70,000 stock, almost entire loss covered by insurance; Western Wholesale Drug Company, \$10,000, loss partially covered by insurance. The fire is supposed to have been caused by spontaneous combustion among the chemicals in the drug stock.

Dr. A. Chalmers Stoddard, of San Francisco, recently visited his brothers, Thomas and Charles, of Buffalo, N. Y. The doctor went East to buy stock and fixtures for the large new store of the Stoddard Drug Co.

DEATH OF DR. F. L. JAMES

We deeply regret to hear of the death from erysipelas, on May 19, of F. L. James, Ph.D., M. D., the talented and versatile editor of the "National Druggist."

Adolph Ekman, Oroville, Cal., died March 15th, aged forty-eight years.

He was a well-known mineralogist as well as an able chemist and assayer. It will be recalled that he had charge of the California exhibit at the Paris Exposition.

Drug Stores Closed By Strike

It is said that all the drug stores in Butte, Montana, were closed at noon, June 1. This has been caused by a strike of clerks for an increase in pay from \$100 to \$125. Wonder what the public will do when deprived of such necessities of life as Peruna, Mrs. Winslow's Soothing Syrup, etc.

Dr. A. H. McFarlan, the genial Sunset Pharmacist, has been making some substantial improvements in his store.

Jackson Bros. who, for twenty years, have been prominently identified with the drug trade of Oakland, are opening another new store at 22d and Broadway in the Key Route Hotel building. This hotel, recently opened, is the leading tourist hotel of Alameda County, and the location, from a drug standpoint, should be first class. The interior of the store will be finished in light oak, and will be fitted with crystal plate show cases, Tennessee marble base, mirror backed and nobby in every detail. A mezzo gallery will run the full length of the store, and there will be fifty feet of plate glass window on the Broadway side, with thirty feet of plate on the arcade. This store is tributary to the most fashionable district in Oakland and adjacent to Piedmont and Vernon Heights, and the management purpose making the store the coziest and most comfortable drug store in the West. A large bay window in the corner is set apart as a cozy corner, fitted with leather window seats, a free telephone and supplied with all the latest magazines. Here ladies can wait for their train; write

their letters or phone their friends. The idea is a new one in the West, and we bespeak for Jackson Bros. marked success.

NEW ASTORIA DRUG COMPANY

Astoria, Ore., May 25.—Articles of incorporation of the Columbia Drug Company were filed in the County Clerk's office this afternoon. The incorporators are Charles C. C. Rosenberg, Mathias Ludwalla and Mary Rosenberg, and the capital stock is \$1,000, divided into twenty shares of \$50 each. The company will conduct a drug store in this city.

W. J. Dick, traveling representative of E. C. DeWitt & Co., manufacturing chemists of Chicago, is doing a land office business in New Mexico.

Henry Holtzman, Imperial druggist, tried and sentenced by Justice Dyke, of Imperial, so six months in the San Diego county jail and to pay a fine of \$500 without the defendant being present for trial, has been released on a writ of habeas corpus. He was under charge of selling liquor illegally. Holtzman was arrested here to be taken to San Diego to serve sentence, but sued for his liberty on the ground that the trial in the justice court was illegal.

F. C. Hempstead has been appointed druggist at the Alameda County Infirmary.

Work has commenced on the foundation for the new drug store to be built by Philip & Philip on Bay View and East Fourteenth street. Contractor Seaman, of Oakland, will construct it. They expect to have everything in readiness to do business in the new store by July 1st.

The Lloyd Drug Company, organized at Salt Lake, was incorporated by articles filed with the County Clerk Friday. The capital stock is \$10,000, shares of \$25 each. The officers are: Walter Lloyd, president; B. P. Lloyd, treasurer; F. J. Pieper, secretary; John Lloyd and Mrs. W. L. Price, directors. The company takes over the business now owned by Walter Lloyd, who has been doing business as the Lloyd Drug Company, at 702 South Seventh East street, Salt Lake.

G. A. Hutaff, the popular druggist of Dunsmuir, returned Monday from Santa Cruz, and on Tuesday left for that place again on a two weeks' visit.

Mr. J. A. Greer, of Los Angeles, has accepted a position as clerk in Mr. E. A. Hall's drug store, Glendora. Mr. Greer was connected with the Owl Drug Company in Los Angeles for more than a year.

It now seems probable that Artesia, Calif., will have a drug store and doctor soon, a druggist from Los Angeles having engaged have of the store room under the hotel.

The partnership between Dr. Billings and Walter Kabesius at Rialto, Calif., has been dissolved. Dr. Billings becomes the sole owner, and has leased the Guernsey building, now under construction, for two years, and will move the stock of drugs from the present building as soon as the new structure is ready for occupancy. Mr. Kabesius goes to Los Angeles, and a new druggist will be in charge in a short time. Howard Moffatt, who has been assisting Mr. Kabesius, will remain for the present.

NEW STORE OPENS

The new store of Bowman & Company in Berkeley is a busy place. The opening was largely attended and augurs well for the success of the new drug store. Carnation favors were given to every lady making a purchase on opening day.

Ensenada, Mexico, May 20.—The drug store of Dr. L. Y. Ketcham was broken into and burglarized last night and the robbers succeeded in escaping with three revolvers and four watches.

As the store door was found open this morning it is believed that the burglars picked the lock to effect an entrance.

In their haste the robbers overlooked a kuntzite ring worth \$60 and a fine Colts revolver.

Governor Celso ordered an inspection of all revolvers in the city, but the search revealed no clues as to the identity of the thieves.

SECOND FIRE IN DRUG STORE

On May the 16th the second fire for the night broke out in the basement of the Stockton Drug Company, necessitating the calling out of the fire department. It seems that damaged chemicals evaporated and caused spontaneous combustion. Captain Finnell noticed the store full of smoke and immediately sent in an alarm. Everything was taken out of the basement yesterday morning.

The Argenti Pharmacy, now at Wailer and Clayton streets, will shortly move to a new store being built at the corner of Haight and Cole streets.

Mr. B. Dickhoff, at present located at Geary and Fillmore streets, expects to change his location.

DRUG CLERKS TO ORGANIZE UNION

Seattle's registered drug clerks will be organized into a union in the near future. The Central Labor Council has had the matter in hand for some time, and the proposition was so favorably received that a meeting has been called to take place in the Labor Temple Wednesday, May 24. Communications inviting participation in the gathering were sent to all the registered clerks in the city, numbering about eighty, most of whom have signified an intention to attend.

T. W. Martin, of Oakesdale, Wash., has accepted a position at the Hughes Pharmacy.

Dr. Solomon Miller, the young druggist who is wanted in New York on a charge of obtaining \$600 by false pretenses, and whose efforts to prevent extradition have failed, was committed to the County Jail in Portland, and will be taken to New York this morning by Lieutenant of Police L. Stransky and Detective William J. Stanford, the New York officers who were sent here for that purpose.

Lieutenant Stransky said that the young man would not only be compelled to face the charge on which he is being returned for trial, but other charges pending against him, some of them involving check transactions that need explanation.

Dr. Miller was released shortly after his arrest on \$600 bonds, and his lawyer filed a writ of habeas corpus in the State Circuit Court of Oregon to secure his release, but this was dismissed. The officers arrived with the papers from Governor Hughes, and after hearing the arguments in the case Governor Chamberlain yesterday signed the extradition papers.

THE LANGLEY & MICHAELS COMPANY BUILD

A splendid eight-story and basement building is being constructed on the lot 60x130 feet, located on the northwest corner of First and Jessie streets, for the Langley & Michaels Co., who are to occupy it as soon as it is completed. It will be a type of the highest class re-enforced concrete construction yet erected in this city.

This building has been designed especially to suit the requirements of their business, and the pillars, girders and foundation footings represent the highest engineering skill. The building will contain two elevators, and these and the stairs will be enclosed by concrete partitions with metal fire-door openings, with wire-glass that will close automatically in case of a fire, thus shutting off the heavy draughts that sweep through a building at such time.

There will be four large concrete vaults for the storage of valuable papers and books belonging to the firm. The floors will be cement, with scuppers at the side through the walls on each floor to carry off the water that will be distributed by the sprinkling system that is made so it will operate automatically in case of a conflagration. The doors and window frames are all to be made of metal, with wire-glass, rendering this building as absolutely fire-proof as is possible. There will also be a special vault erected for the purpose of holding the dangerous chemicals and oils that are carried by this firm in the natural course of business. Each partition wall dividing the various floors will be of concrete, equipped with automatically closing fire-doors. Artesian well water will be pumped to two 10,000-gallon tanks located on the roof, for the purpose of feeding the sprinkling system and the standpipes. A modern system heating plant will be installed, also pneumatic tube carriers connecting the various floors.

The first floor will be occupied as a salesroom and office by the firm, the second, third and fourth floors will hold the order department, while an extensive laboratory will be established on the top floor. The remaining floors will be used as a warehouse, and the packing of goods will be carried on in the basement.

The Tonopah Drug Company, located in central Main street, is ready for business. While the formal opening will not take place for several days yet the fixtures are all in and the work of installing the goods has progressed to such an extent that business can be transacted. Manager J. S. Richmond stated today that it would be at least two days before the store room would be entirely arranged. The room is one of the finest in the city and the location one of the best. The drugs to be carried by the company will be of the highest grade, together with the usual articles handled by drug stores. Mr. Richmond will be assisted in the work by J. R. Nicholson, who was with the old Kendall-Mason Company.

Charles F. Miller of 121 South Breed street, Los Angeles, agent for the Dearborn Drug and Chemical Company, left yesterday for Europe. He expects to be gone about three months, and will visit points in Germany, France and England.

Complaints have been made to the Mayor of Bellingham, Wash., that druggists in that city have been violating the law against liquor selling. As saloonmen pay \$900 a year license they naturally feel sore when druggists who have no license do what they are not permitted to do.

A disastrous fire visited Camp Meca, May 28th, and destroyed a great many buildings, among which was the drug store owned by Dr. Lawrence. We hope to hear that Dr. Lawrence will re-establish his store in that delightful spot.

The board of supervisors of Los Angeles County are calling for bids to supply the county institution with drugs and chemicals.

You can reach *some* of
the Druggists of the Coast
some of the time through
some of the Journals

BUT

you can reach *all* of the
Druggists *all* the time
through the
Pacific Pharmacist

Advertising rates on application

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

ACETANILID. 1-lb. cart. incl.....lb	36	Muriatic, 6-lb bots.....each	75
Powd., 1-lb. cart. incl.....lb	36	Muriatic, C. P., 6-lb bots.....lb	22
ACID. Acetic No. 8, carboys.....lb	07	Muriatic, C. P., 1-lb bots.....lb	38
1-lb bottles, M. C. W.....lb	20	Nitric, carboys.....lb	8
5-lb bottles, ".....lb	15	Nitric, 7-lb bots.....1 10	
Glacial, M. C. W.....44		Nitric, C. P., 7-lb bots.....lb	22
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21	Nitric, 1-lb bots.....lb	40
Arsenic, Hydrated Pure, Merck's.....oz	14	Nitro-Muriatic.....lb	40
Arsenous, Lumps, Pure, Merck's.....oz	8	Nitrous, fuming.....lb	65
Arsenous, Powd., Pure, Merck's.....oz	8	Oxalic.....14-16	
Benzoic, from Toluol, M.C.W., 1-lb cart.incl lb	60	Oxalic, chem. pure, M. C. W.....lb	30
Benzoic, from Toluol, Merck's.....oz	13	Phosphoric, glacial, Merck's.....lb	64
Benzoic, True from Benzoin, Merck's....oz	15	Phosphoric, syrupy (85%).....lb	55
Benzoic, English, Merck, 1-oz boxes....oz	16	Phosphoric, diluted, M. C. W.....lb	25
Benzoic, English, Merck's.....lb	2 24	Phosphoric, M. C. W., U. S. P., 50%..lb	40
Benzoic, Merck's, 1-oz cartons.....12		Phosphoric, glacial, 1-oz vials.....oz	11
Benzoic, Merck's.....lb	55-65	Phosphoric, glacial, 1s, M. C. W.....lb	64
Boracic, crys., M. C. W.....lb	18-20	Picric.....lb	60-70
Boracic, powd., M. C. W.....lb	18-20	Pyrogallic, Resublimated, Merck's.....oz	27
Boracic, im. powd., C. P., 1-lb cart. incl..lb	28	Pyrogallic, Merck's, 1-lb cans.....lb	2 35
Boracic, Squibb's, 500 gram.....43		Pyrogallic, Merck's, ½-lb cans.....lb	2 45
Boric, H. P., Merck's.....lb	28	Pyrogallic, Merck's, ¼-lb cans.....2 55	
Boric, powd., pure, Merck's.....lb	20	Pyrogallic, Schering's.....lb	2 50
Boric, Impalp., powd., Merck's.....lb	28	Pyrogallic, Schering's.....½-lb	2 60
Butyric, 100%, Merck's.....oz	27	Pyrogallic, Schering's.....¼-lb	2 70
Butyric, H. P.....lb	2 14	Pyrogallic, Schering's, oz. vials.....oz	28
Cacodylic, Merck's ⅓.....oz	4 00	Pyroligneous.....gal	40
Camphoric, Merck's.....oz	49	Salicylic, Merck's, 1-lb cartons.....lb	46
Carbolic, Calvert's No. 1.....lb	2 00	Salicylic, from Oil Wintergreen, Merck's.oz	44
Carbolic, Calvert's No. 2.....lb	1 50	Salicylic, Amorph., Merck's.....lb	46
Carbolic, M. C. W., gilt label.....lb	31	Salicylic, from Wintergreen, Merck's....oz	44
Carbolic, 5-lb can, gilt label.....lb	27	Succinic, Merck's, oz bottles.....oz	74
Carbolic, M. C. W., 10-lb can, gilt label..lb	26	Sulphuric, Aromatic.....lb	75
Carbolic, cork stop.....1-lb bot	31	Sulphuric, carboys.....2-2¼	
Carbolic, Loose, crys., Merck's.....lb	70	Sulphuric, 9-lb bottles.....1 00	
Carbolic, Silver Label, Merck's.....lb	31	Sulphuric, C. P., 9-lb. bottles.....lb	22
Carbolic, Solution, 1-lb. bot.....doz	2 50	Sulphuric, C. P., 1-lb bottles.....lb	38
Carbolic, Crude.....gal	40-50	Sulphurous, U. S. P., solution.....lb	25
Chromic, 1-oz vials.....oz	11	Tannic.....lb	85-90
Chrysophanic, true, M. C. W., 1-oz vials..oz	37	Tannic, H. P., Merck's.....lb	1 71
Cinnamic, H. P., Merck's.....oz	39	Tartaric, crystallized.....lb	39-45
Citric, crys.....lb	63-67	Tartaric, powdered.....lb	39-45
Gallic, 1-oz cartons, Merck's.....oz	11	Tri-chlor-acetic, Merck's.....oz	32
Gallic.....lb	70	Valerianic, Merck's.....oz	20
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15	ACONITINE. Amorphous, Merck's.....dr	1 40
Hydrobromic, U. S. P., 10%, M.C.W....lb	34	Cryst., Merck's.....dr	1 40
Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10	ADAPES LANAE. B. P.....lb	35
Hydriodic (Sp. gr. 1.50), Merck's.....oz	42	AGARIC. White.....lb	45
Hydriodic (Sp. gr. 1.70), Merck's.....oz	52	ALBOLINE.....lb	50
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39	5-lbs.....lb	45
Hydrocyanic, U. S. P., Scheele's.....oz	35	Liquid.....lb	50
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30	Liquid, 5-lbs.....lb	45
Hydrofluoric, ½s, g. p. bots. incl. " ..lb	1 80	AGURIN.....oz	1 70
Hydrofluoric, ¼s, g. p. bots. incl. " ..lb	2 25	ALBUMEN. Egg.....lb	1 45
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37	ALCOHOL. Absolute.....qt	1 00
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24	94%, 10-gal. case.....gal	2 85
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19	94%, 5-gal. case.....gal	2 90
Lactic, conc., 1-oz vials, M. C. W.....oz	12	Wood, 10-gal. case.....gal	75
Lactic, conc., 1s, Merck's.....lb	79	Wood, 5-gal. case.....gal	75
Lactic, dilute, 1-oz vials, M. C. W.....oz	8	Wood, Columbian Spirits, 5 gal. in case.gal	1 02
Muriatic, carboys.....lb	3¼	Wood, Columbian Spirits, barrels.....gal	85

* Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Wood, Columbian Spirits, ½ barrels....gal	95	ANODYNE. Hoffman's, 1-lb bottle.....lb	75
Cologne Spirits, 5 cents advance over price of Alcohol.		ANTHRASOL	60
ALDEHYDE. Conct., Merck's	25	ANTIFEBRIN. Merck's	17
ALLSPICE. lb	17	ANTI-KAMNIA and its combinations.....oz	1 00
Powdered	20	10-oz lots for \$9.25; 25-oz for \$22.80	
ALMOND MEAL	45	Tablets, Vest Pocket	1 75
ALMONDS. Bitter, shelled.....lb	45	Tablets, Vest Pocket, 1 gross, 5% off.	
Sweet, shelled. lb	45	ANTIMONY. Black, powdered, pure.....lb	15
ALOIN. 1-oz vials	11	Black, powdered, commercial	10
ALUM. Ammonio-Ferric, M. C. W. lb	34	Chloride, cryst., 1-oz vials.....oz	22
Chrome	21	Chloride, sol. (Butter of)	39
Burnt	15	Oxysulphuret (Kermes Mineral)	1 00
Ground	7-9	Potassium Tartrate, powdered	42
Lump. lb	5-8	Sulphuret, precipitated	92
Powdered. lb	7-9	ANTINOSINE	2 10
ALUMINUM. Aceto-Tartrate, M. C. W....oz	20	ANTIPYRIN. Knorr's	35
Bromide, M. C. W.....oz	29	New	25
Chloride, M. C. W.....lb	79	APIOL. Fluid Green, Merck's.....oz	37
Chloride, M. C. W.....oz	14	APOLSYIN. S. & G. oz	65
Hydrated, pure, M. C. W.....lb	79	APOMORPHINE. Hydrochlor. A m o r.,	
Metallic, M. C. W.....oz	17	Merck's	3 50
Sulphate, pure; M. C. W.....lb	25-29	Mur. cryst. oz	9 50
Sulphate, H. P., Merck's	59	Muriate, Amorphous, ½-oz vials, M.C.W. oz	2 80
ALUMNOL	60	ARISTOL	1 80
AMIDOL. 1-oz. can	65	ARGOLS. Red	15
AMMONIA. Spirits of	75	Red, powdered	20
Spirits of, aromatic	75	ARGYROL	1 50
Aqua, 26 deg., 1-lb. bot.....lb	20	ARROWROOT. St. Vincent.....lb	18-20
Aqua, 26 deg., 4-lb bot.....lb	16	Taylor's Bermuda, ¼s and ½s.....lb	35
Aqua, 26 deg., 5 gal. can.....lb	11	Taylor's Bermuda, bulk	35
Aqua, 26 deg., carboy 200.....lb	9½	ARSENIC. Bromide, 1-oz vials, M. C. W....oz	27
Aqua, Washing, 5-gal. can.....gal	50	Chloride, sol., M. C. W.....lb	30
AMMONIUM. Acetate, cryst., M. C. W....oz	14	Iodide, 1-oz vials, M. C. W.....oz	44
Arseniate, 1-oz vials, M. C. W.....oz	22	Metallic	45
Benzoate, 1-oz vials, M. C. W.....oz	14	Red, powdered	15
Benzoate, M. C. W. lb	1 14	Solution (Donovan's)	40
Bichromate, 1-oz vials, M. C. W.....oz	14	Solution (Fowler's)	30
Bromide, 1-oz vials, M. C. W.....oz	10	Sulphured, red powdered	33
Bromide, M. C. W. lb	46	Sulphured, yellow powdered	33
Carbonate. lb	15-18	White, lump	30
Carbonate, powdered	20	White, powdered, commercial.....lb	18
Carbonate, C. P., Squibb's, 1-500 gram....	45	Yellow (orpiment)	35
Citrate, 1-oz. vials, M. C. W.....oz	16	ASBESTOS. Fibrous, gro.....lb	20
Hypophosphite, 1-oz vials, M. C. W.....oz	21	ASPARAGIN. ½-oz vials	1 50
Hypophosphite, M. C. W. lb	1 70	ASPIRIN	43
Iodide, 1-oz. vials, M. C. W.....oz	38	ATROPIA. Pure, ½-oz vials, Merck's....oz	6 70
Muriate, lump. lb	14-16	Sulphate, ½-oz vials, Merck's	5 65
Muriate, gran. lb	10-12	BALSAM. Copaiba, 8-lb can.....lb	1 35
Muriate, gran., pure, 1-lb cartons.....lb	20	Copaiba, 5-lb bottle. lb	1 40
Muriate, powdered, pure.....lb	19	Copaiba, 1-lb bottle.....lb	1 50
Muriate, Po.....lb	19	Copaiba, solidified. lb	1 50
Muriate, Po., Squibb's	35	Fir, Canada. lb	70-75
Nitrate, H. P., Merck's	44	Fir, Oregon. lb	50-55
Nitrate, cryst., refined	37	Gurgun	40
Oxalate, H. P., Merck's.....lb	85	Peru. lb	2 75-3 00
Phosphate	84	Sulphur	60
Salicylate, Merck's	1 10	Tolu	75
Salicylate, Merck's	13	BARIUM. Acetate, 1-oz vials, M. C. W....oz	16
Succinate. oz	69	Carbonate, M. C. W.....lb	37
Sulphate, com'l	12	Carbonate, precip., Merck's	30
Sulphate, C. P., Merck's	29	Chloride, chemically pure, M. C. W....lb	38
Sulpho Cyanate, pure	10	Chloride, H. P., cryst., Merck's.....lb	38
Valerianate, cryst., 1-oz vials.....oz	24	Nitrate, M. C. W. lb	23
Valerianate, cryst. lb	1 75	Nitrate, H. P., cryst., Merck's.....lb	37
AMMONOL	1 05	Sulphide, commercial, Merck's.....lb	43
AMYL. Acetate	69	Sulphide, pure, Merck's	53
Butyrate, M. C. W. oz	30	Sulphate, M. C. W. lb	13
Nitrite, Merck's	29	BARK. Alder, black, pressed, 1-lb.....lb	22
Valerianate, M. C. W. lb	2 59	Alder, red or tag, pressed, 1-lb.....lb	24
ANNATTO. Roll	60	Angostura	30
		Ash, black, pressed, 1-lb.....lb	20
		Ash, mountain, pressed, 1-lb.....lb	24

Ash, white, pressed, 1-lb.....lb	25	Tonka, Angostura lb	1 25
Barberry, pressed, 1-lb.....lb	30	Vanilla, short, true Mexican.....lb	8 50
Barberry, powdered lb	35	Vanilla, long, true Mexican.....lb	9 50
Bayberry, pressed, 1-lb. lb	25	Vanilla, Tahita lb	1 25-1 50
Bayberry, powdered. lb	30	BEBEERINE. Pure, 1-oz vials oz	2 04
Birch, pressed, 1-lb.....lb	24	Sulphate, 1-oz vials oz	1 49
Black Haw, powdered lb	35	BENZOLE. Pure lb	35
Black Haw, pressed, 1-lb.....lb	30	H. P., Merck's lb	37
Black Willow, pressed, 1-lb.....lb	25	BENZIN. Gallon lb	30
Blackberry. lb	20	5 and 10 gallons gal	25
Buckhorn, pressed, 1-lb. lb	22	Pints doz	1 60
Butternut, pressed, 1-lb. lb	22	BERBERINE. Hydrochloride, Merck's....oz	1 74
Calisaya, yellow, commercial. lb	30	Sulphate, Merck's oz	1 74
Calisaya, yellow, commercial, powd.....lb	32	BERRIES. Buckthorn lb	30
Calisaya, East India. lb	42	Coccius Indicus lb	15
Calisaya, powdered. lb	45	Cubeb, stemless lb	25
Canella lb	30	Cubeb, powdered lb	30
Canella, powdered lb	35	Elder lb	30
Cascara, Sagrada. lb	18	Juniper, Italian lb	10
Cascara, Sagrada, powdered. lb	20	Poke lb	25
Cascarilla lb	25	Prickly Ash. lb	40
Cascarilla, powdered lb	30	Sumac lb	25
Cassia. lb	22	Sumac, powdered lb	30
Cassia, powdered lb	25	BETOL lb	60
Cinchona, red. lb	45-50	BISMUTH. Acetate, M. C. W. oz	34
Cinchona, red powdered. lb	45-50	Citrate, M. C. W. lb	2 64
Cinnamon, Ceylon. lb	40 50	Citrate, M. C. W. oz	24
Cinnamon, Ceylon, powdered. lb	40-50	Citrate and Ammonia, M. C. W.....oz	24
Cotton Root, powdered. lb	35	Citrate and Ammonia, M. C. W.....lb	2 64
Cotton Root, pressed, 1-lb.....lb	35	Lactate oz	42
Cramp, powdered lb	25	Metallic lb	2 25
Cramp, pressed, 1-lb.....lb	19	Nitrate, M. C. W. oz	23
Cundurango lb	45	Oxide, Hydrated, M. C. W.....lb	3 33
Cundurango, powdered lb	50	Oxide, Hydrated, M. C. W.....oz	32
Dogwood, pressed, 1-lb.....lb	20	Oxychloride, M. C. W.....lb	2 42
Dogwood, powdered lb	25	Salicylate, 40%, Merck's.....oz	24
Elder, pressed, 1-lb.....lb	35	Salicylate, 64% Basic, Merck's.....oz	25
Elm, select, slabs. lb	30	Salicylate, 64%, M. C. W.....lb	2 74
Elm, ground, bulk lb	30	Subbenzoate. oz	32
Elm, powdered lb	30	Subcarbonate lb	2 42
Elm, powdered, 1/4s.....lb	30	Subgallate, Merck's oz	26
Elm, powdered, 1/8s.....lb	35	Subiodide, M. C. W. lb	4 59
Elm, powdered, ozs.....lb	40	Subiodide, 1-oz vials, M. C. W.....oz	36
Hemlock, pressed, 1-lb. lb	25	Subnitrate, M. C. W.....lb	2 18
Hemlock, powdered. lb	30	Tannic, 1-oz vials, M. C. W.....oz	25
Jamaica Dogwood, pressed, 1-lb.....lb	35	Valerianate, 1/8s.....oz	60
Jamaica Dogwood, powdered, 1-lb.....lb	35	BLUE MASS lb	60
Mezereon, pressed, 1-lb.....lb	28	Powdered lb	62
Oak, red, pressed, 1-lb.....lb	22	BLUE VITROL. Barrels, 10.....lb	14-16
Oak, white, powdered. lb	22	Powdered lb	18
Oak, white, pressed, 1-lb.....lb	22	BOLE. Armenian lb	18
Poplar, white, powdered, 1-lb.....lb	20	BONE ASH lb	6-8
Poplar, white, pressed, 1-lb.....lb	15	BORAX. C. P., Squibb's lb	33
Poplar, yellow, pressed, 1-lb.....lb	18	Pacific Coast Borax Co., 1-lb.....doz	1 14
Prickly Ash, powdered lb	40	Pacific Coast Borax Co., 3/4-lb.....doz	90
Prickly Ash, pressed, 1-lb.....lb	33	Pacific Coast Borax Co., 1/4-lb.....doz	48
Quebracho lb	35	Powdered lb	10-12
Sassafras. lb	28	Pure Granular lb	25
Sassafras, powdered lb	25	Refined lb	10-12
Simaruba lb	50	BOROFORMOL. Pints doz	7 50
Soap Tree lb	9-10	BOROGLYCERIDE Solution. lb	60
Soap Tree, ground lb	16	BOROTHYME. 4-oz cans doz	9 00
Soap Tree, powdered. lb	15	BROMINE lb	83
Sumac, pressed, 1-lb.....lb	21	Chloride, solution oz	60
Tamarac, pressed, 1-lb. lb	22	BRUCINE. 1/8-oz vials, M. C. W.....oz	1 75
Wahoo Root, pressed, 1-lb.....lb	33	Merck's oz	1 75
Wild Cherry. lb	16	Phosphate, Merck's oz	1 75
Wild Cherry, ground. lb	18	Sulphate, Merck's, 1/8-oz vials.....oz	1 75
Wild Cherry, powdered lb	20	BUDS. Balm of Gilead lb	60
BAY RUM. Domestic gal	2 25	Cassia lb	40
Imported gal	3 00	BUTTER CACAO. Ghirardelli. lb	60
BEANS. Calabar. lb	40	German. lb	62

CADMIUM. Bromide, M. C. W.....oz	20	French, powdered lb	5-8
Iodide, M. C. W., 1-oz vials.....oz	33	Precipitated, English lb	10-12
Sulphate, M. C. W., 1-oz vials.....oz	24	Prepared in drops, bulk lb	7-8
CAFFEIN. Bromide, 1-oz vials.....oz	31	Prepared in drops, 5-lb boxes.....lb	8-10
1/8-oz vials oz	51	Prepared pink, 8-lb boxes.....lb	10
Citrated, Merck's oz	23	White, in lumps lb	3-4
Pure, Merck's oz	29	CHARCOAL. Animal lb	8-10
Sulphate, 1/8-oz vials, Mallinckrodt's.....oz	55	Willow, powdered lb	15-20
Salicylate, true salt, 1/8s, Mallinckrodt's.....oz	55	CHINA CLAY lb	10
CALAMINE lb	18	CHINESE SHAVINGS lb	60
CALCIUM. Bromide, 1-oz vials, M. C. W.....oz	12	CHINOIDINE. 1-oz rolls oz	12
Bromide, M. C. W.....lb	64	CHLORAL HYDRATE, CROTON, 1-oz vial	
Chloride, fused, M. C. W.....lb	64	incl. oz	35
Chloride, granular, M. C. W.....lb	30	Crystals, Merck's lb	1 35
Glycerolphosphate oz	22	Crystals, Merck's, 1/2s.....lb	1 45
Hypophosphite, 1-oz vials. oz	14	Crystals, Merck's, 1/4s.....lb	1 55
Hypophosphite. lb	89	Crystals, Merck's, oz.....lb	2 10
Hypophosphite and Sodium, 1-oz vials....oz	16	Crystals, M. C. W., 1s.....lb	1 35
Hypophosphite and Sodium, M. C. W.....lb	1 09	Crystals, M. C. W., 1/2s.....lb	1 45
Iodide, 1-oz vials, M. C. W.....oz	37	Crystals, M. C. W., 1/4-lb cartons.....lb	1 50
Lactophosphate, soluble lb	1 35	Crystals, M. C. W., ozs.....lb	2 10
Lactophosphate, soluble oz	17	Crystals, 1-lb g. s. b. incl., Schering....lb	1 35
Phosphate, precipitated, 1-lb cart.....lb	20	Crystals, 1/2-lb g. s. b. incl., Schering....lb	1 45
Phosphide, 1-oz vials oz	50	Crystals, 1/4-lb g. s. b. incl., Schering....lb	1 55
Sulphate, pure lb	49	Crystals, 1-oz g. s. vls. incl., Schering....oz	17
Sulphide, 1-oz vials oz	10	CHLORALAMID 25 gramme	80
Sulphide lb	37	CHLOROFORM. 1-lb tin.....lb	52
Sulphite lb	84	In 7-lb bottle lb	42
Sulpho, carbolate, M. C. W.....oz	11	Squibb's, 1-500 gramme. lb	90
CALOMEL. Bulk. lb	1 00	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	25
English, Howard's lb	1 35	Bisulphate, M. C. W. oz	18
CAMPHOR. Monobromated, Mallinckrodt's...oz	27	Muriate, M. C. W.....oz	17
Tar flake. lb	5-7	Sulphate, 1-oz vials, M. C. W.....oz	17
Tar balls. lb	5-7	CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	50
CANDY. Coltsfoot Rock lb	30	Bisulphate, 1-oz vials, M. C. W.....oz	30
Horehound. lb	12	Muriate, M. C. W. oz	32
Rock, on strings lb	15	Salicylate, 1-oz vials, M. C. W.....oz	34
Rock, brown lb	16	Sulphate, 1-oz vials, M. C. W.....oz	30
Rock, red lb	15	Sulphate, 5-oz cans, M. C. W.....oz	25
Rock, white lb	14	CLOVES. Zanzibar. lb	28
CANTHARIDES. Russian, powdered....lb	1 50	Zanzibar, powdered lb	30
Chinese, powdered lb	1 10	COBALT lb	25
CAPSICUM. African, pods oz	25	Cobalt, powdered lb	30
African, powdered oz	30	COCAINE. Alk., 1-oz. vials, incl.....oz	3 80
Bombay oz	20	Hydrochloride, Merck's oz	3 05
CARAMEL gal, \$1.25. lb	30	Hydrochloride Cryst., 1-oz v'ls, M.C.W....oz	3 05
CARBON. Bisulphide lb	17	Hydrochloride Cryst., 1/2-oz v'ls, M.C.W....oz	3 20
Bisulphide, 50-lb cans.....can	4 73	Hydrochloride Cryst., 1/4-oz v'ls, M.C.W....oz	3 30
Bisulphide, Wheeler's 50-lb can.....ea	4 73	Hydrochloride Cryst., 1/8-oz v'ls, M.C.W....oz	3 45
Bisulphide, 1-gal cans. gal	1 35	COCHINEAL. Honduras. lb	60
Bisulphide, quart bottles doz	4 50	Honduras, powdered. lb	65
Bisulphide, Purif., Merck's.....lb	49	CODEINE. Merck's Pure. oz	4 75
CARMINE. No. 40. oz	40	Muriate 1-oz, \$4.50.....1/8s	4 70
No. 40. lb	4 50	Phosphate, 1/8-oz vials. oz	4 45
CASSIA FISTULA lb	20	Sulphate, M. C. W. oz	4 50
CASTOR FIBER. oz	1 50	COLLODION lb	90
Castor Fiber, powdered oz	1 75	1-oz vials doz	1 25
CERATE. Cantharides lb	1 00	Cantharidal lb	2 35
Goulard's, U. S. P. lb	70	Cantharidal, 1-oz vials doz	2 20
Resin, U. S. P. lb	50	Flexible lb	1 00
Savin lb	60	Flexible, 1-oz vials doz	1 50
Simple lb	50	COLCHICINE. cryst., Merck's, 15-grain...gr	14
Spermaceti lb	70	C. P., Amorph., 15-grain vials.....gr	30
Turner's lb	60	COLOCYNTH. Apples, Trieste.....lb	60-65
Zinc, Carbonate, true lb	60	Apples, powdered lb	75
Zinc, Oxide lb	60	COMPOSITION POWDER, 2-oz papers..lb	35
Full line of all makes U. S. P. and Proprietary.		CONFECTION. Aromatic lb	1 00
CERIUM. Oxalate, Merck's oz	09	Opium lb	1 50
Oxalate, 1-lb cartons lb	47	Rose, U. S. P. lb	65
CHALK. Crayons, white lb	15	Senna, U. S. P. lb	70
French, cut lb	18-20	Theriac lb	1 25

COPPER. Acetate, cryst., C.P., M.C.W.....lb	74	Chloric, concent., M. C. W., 1-lb bot....lb	74
Acetate, com'l, lump	40	Formic, 1-lb bot. lb	1 59
Acetate, Po. Verdigris	45	Hydrobromic, 1-oz bot. oz	20
Ammoniated	59	Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 20
Arsenite, 1-oz vials, M. C. W. oz	19	Nitrous, conc., M. C. W., ½-lb bot.....lb	1 10
Arsenite, 1-oz vials	19	Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00
Bromide	32	Nitrous Spirit, 4-lb bot.	58
Iodide, M. C. W. oz	44	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	81
Nitrate	54	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	78
Sulphate, C. P., granulated, 1-lb. boxes...lb	23	Sulphuric, conc., 1-lb can.....lb	87
Sulphate, Caustic Pencils, Merck's.....doz	1 75	Sulphuric, conc., 3-lb can.....lb	84
Sulphate, purified, 1-lb cartons.....lb	21	Sulphuric, washed, 1-lb bot.....lb	87
COPPERAS. bbls 1¼.....lb	3-4	Sulphuric, Squibb's, in 1-500 gm cans....ea	1 35
CORROSIVE SUBLIMATE	92	Sulphuric, Squibb's, in 1-250 gm cans....ea	70
Powdered. lb	95	Sulphuric, Squibb's, in 1-100 gm cans....ea	33
COTOIN. Para, Merck's, ⅛-oz.....oz	14 00	Valerianic. oz	44
COTTON. Negative. oz	60	ETHYL. Bromide, Merck's. oz	20
COWHAGE. 1-oz cans	55	Chloride, 10 gramme tubes Bengue.....doz	5 00
CREAM TARTAR, pure, powdered.....lb	34-37	Chloride, 30 gramme tubes Bengue.....doz	10 00
Pure, powdered, 25-lb box.....lb	30	Chloride, Merck's, 10 gramme.....ea	40
CREOLIN. ½-lb.....doz	4 00	Iodide (see Hydriodic Ether), Merck's..oz	54
1-lb	8 00	EUCALYPTOL. Merck's. oz	16
CREOSOTE. Beechwood, Merck's	94	EUCAINE. A or B, ⅛s.....oz	3 60
Merck's, ½-lb. lb	1 10	EUDOXINE. oz	2 10
Merck's, ¼-lb. lb	1 20	Tablets, 3-gr. oz	2 60
CREOSOTE CARBONATE	65	Tablets, 5-gr. oz	2 50
In ¼-lb	9 25	Tablets, 1-3 gr, ¼-oz bots.....oz	3 00
In ½-lb	9 15	EUKATROL, powd.....oz	1 00
In 1-lb	9 10	Tablets	1 00
CROCUS MARTIS	16	EUROPHEN. oz	1 80
CUDBEAR	30	EXALGINE. oz	1 50
CUMARIN	45	EXTRACT. Licorice, Corigliano. lb	45
CUMENE (Cumol), Merck's	1 10	Licorice, Mellor & Rittenhouse.....lb	27-30
CURCUMA. Powdered	16	Licorice, M. & R., 25 and 50-lb box....lb	26
CUTTLEFISH	35	Licorice, soft, perf., clearly soluble.....lb	75
Jeweler's	85	Licorice, Y. & S.....lb	27-30
Powdered	30	Licorice, powd. lb	35
DATURINE. Alk., cryst., 5-gr, Merck....ea	75	Logwood, bulk. lb	14
DEXTRIN. lb	12-15	Logwood, ¼s. lb	20
DIASTASE. of Malt	1 14	Logwood, ½s. lb	18
DIGALEN. ½-oz bottles	1 00	Logwood, 1s. lb	16
DIGITALIN. ⅛-oz vials, Merck's.....oz	5 75	Male Fern, U. S. P., Merck's.....lb	2 25
DIONIN. ⅛s, Merck's	6 25	Malt, dry, Merck's. lb	1 25
15-gr vials, Merck's. ea	35	Opium, Aqueous, dry, Merck's.....oz	1 04
DOVER'S POWDER, U. S. P.....lb	1 35	Witch Hazel. gal	1 10
DRAGON'S BLOOD, Mass. lb	55	Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05
Powdered. lb	65	Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00
Reed's. lb	85	FAREOL. oz	50
DIURETIN. oz	1 80	FENETOLE	2 00
DUBOISINE, Sulphate, Merck's, 10-gr vial..	1 10	FERRATIN. Powder or tablets.....oz	85
EARTH, Fuller's, powdered. lb	8-10	FLAKE WHITE. English. lb	15
EIKONOGEN, 1b, \$3.95; ½s, \$4.20.....oz	37	FLOUR. Gluten. lb	15
¼s. lb	4 80	Rice. lb	12
ELATERIN, Merck's, 15-gr vial.....	1 25	FLOWERS. Althea. lb	40
ELATERIUM, ⅛-oz vials. oz	3 00	Arnica. lb	18-20
EMERY. Flour. lb	10-12	Arnica, powd. lb	23-25
Grain... lb	10-12	Calendula, new. lb	50
EMETIN (Resinoid), Merck's. oz	7 53	Chamomile, German, new. lb	30
(Alkaloid), pure, Merck's, 15-gr vial.....	1 25	Chamomile, Roman. lb	40
ERGOT. Spanish. lb	65	Elder	25
Spanish, powd.....lb	65	Elder, pressed. oz	25
ERGOTIN. Ergotin-Bonjean, Merck's.....oz	39	Kooso. lb	75
ERGOTOLE. S. & D.....doz	4 50	Kooso, powd. lb	80
ESERINE (Physostigmine), 5 gr Alkaloid,		Lavender. lb	35
Merck's	13	Mullein.....lb	1 00
Sulphate, 5-gr vials, Merck's.....ea	50	Orange.....lb	1 10
Sulphate, 10-gr vials, Merck's.....ea	1 00	Poppy, red. lb	75
Sulphate, 15-gr vials, Merck's.....ea	1 50	Rose, red. lb	1 20
ETHER. Acetic, M. C. W., 1-lb bot.....lb	59	Rosemary. lb	35
Benzoic, 1-oz bot. oz	34	FLOUR SPAR. Powdered.....lb	25
Butyric, 1-lb bot. lb	1 70	FORMALDEHYDE. Merck's. lb	32
Chloric, U. S. P., M. C. W., 1-lb bot....lb	64	1-lb bot. lb	30

FORMALIN. S. & G. lb	40	Mastic tears. lb	85
FORMIN. Merck's. oz	21	Myrrh, Turkey. lb	35
GADUOL. Merck's. oz	37	Myrrh, Turkey, powd. lb	40
GAMBIER. lb	15	Oilbanum tears. lb	30
GARANTOSE. 550 times sweeter than sugar.		Opium. lb	4 80
1-lb cans, Merck's. lb	2 25	Opium, powd. lb	5 80
1-oz cans, Merck's. oz	20	Sandarac. lb	45
GELATIN. Cooper's, 12-lb case. lb	65	Scammony, Aleppo. oz	40
Coxe's. doz	1 50	Scammony, Virgin, true. oz	75
French Pink. lb	75	Shellac, bleached. lb	75
French Gold Label. lb	55	Shellac, orange. lb	70
French Silver Label. lb	40	Shellac, ground. lb	75
GLASS. Powdered. lb	15	Spruce. lb	1 50
Soluble. lb	25	Tamarac, true. lb	1 25
GLUCOSE. 1-lb bot. lb	20	Thus. lb	12
GLUE. Common. lb	15	Tragacanth, ribbon. lb	90
White, No. 1. lb	25	Tragacanth, powd. lb	80
GLUTOL. oz	65	GUTTA PERCHA. Crude, shavings. lb	1 75
GLYCERINE. Price's. lb	70	Crude, sheets. lb	1 75
Pure, in 10-lb cans. lb	19 1/2	HEDONAL. oz	1 60
Pure, in 50-lb cans. lb	17	HEMICRANIN. oz	90
GLYCEROPHOSPHATES. Iron, Merck's. oz	32	HEMOGALLOL. Merck's. oz	80
Lime, Merck's. oz	22	Tablets, Merck's. 100	80
Potash, Merck's. oz	29	HEROIN. 1-oz. oz	4 85
Soda, Merck's. oz	28	1-oz, 1/2-oz vials. oz	5 00
GLYCYRRHIZIN. Ammoniated, Merck's. oz	29	1/4-oz. oz	5 15
Ammoniated, Merck's. lb	3 10	15-gr vials. ea	23
GOLD and Sod. Chlo., 15-gr v'ls, M.C.W. doz	2 70	Hydrochloride, oz vials. oz	4 85
Chloride, 15-gr vials, M. C. W. doz	5 10	1/2-oz. oz	5 00
Mono-bromide, Merck's, 15-gr vials. ea	1 25	1/2-oz, 1/4-oz vials. oz	5 15
Tri-bromide, Merck's, 15-gr vials. ea	1 00	15-gr vials. ea	23
Tri-cyanide, Merck's, 15-gr vials. ea	2 00	HEXAMINE. oz	30
GOOSE GREASE. lb	60	Tablets. oz	40
GRAINS. Paradise. lb	40	HIERA PICRA. lb	50
Powdered. lb	45	HOFFMAN'S ANODYNE. lb	75
GUAIACOL. Carb. oz	1 50	HOMATROPINE, Alk'l'd, 5-gr vials, Merck's. ea	2 25
Merck's. oz	18	HOMATROPINE, Alk., 5-gr v'ls, Merck's. ea	2 25
GUARANA. Powd. lb	2 75	Hydrobromate, 5-gr vials, Merck's. ea	1 75
GUM. Aloes, Barbadoes. lb	25	Hydrochlorate, 5-gr vials, Merck's. ea	2 10
Aloes, Barbadoes, powd. lb	30	HOMOGLOBIN, powd., Merck's. oz	1 04
Aloes, Cape. lb	20	HOPS, new, bulk. lb	37
Aloes, Cape, powd. lb	20-25	New, ozs. lb	50
Aloes, Socotrine. lb	40	New, 1/4s, 1/2s. lb	40
Aloes, Socotrine, powd. lb	40	HYDROCHINON, Merck's. oz	18
Ammoniac tears. lb	40	Merck's. lb	1 42
Arabic, Turkey, first pick. lb	55	HYDROGEN PEROXIDE, Drevet's U.S.P.,	
Arabic, Turkey, second pick. lb	40	1-lb bots. doz	3 00
Arabic, Turkey, sifted sorts. lb	20	Drevet's U.S.P., 1/2-lb bots. doz	1 90
Arabic, first pick, granulated. lb	58	Drevet's U.S.P., 1/4-lb bots. doz	1 40
Arabic, first pick, powd. lb	60-65	Marchand's, 1-lb bots. doz	8 00
Asafoetida, Calcutta. lb	40	Marchand's, 1/2-lb bots. doz	5 25
Asafoetida, powd. lb	45	Marchand's, 1/4-lb bots. doz	3 80
Asphaltum. lb	15	Marchand's, 1/8-lb bots. doz	2 25
Benzoin, marble, select. lb	50	Mallinckrodt's, 1-lb bots. doz	3 00
Benzoin, powd. lb	55	Mallinckrodt's, 1/2-lb bots. doz	1 80
Camphor, Japanese, 1-oz blocks, 1-lb box. lb	1 56	Mallinckrodt's, 1/4-lb bots. doz	1 20
Camphor, bulk. lb	1 53	Oakland, 1-lb bots. doz	6 50
Camphor in slabs, 12-lb boxes. lb	1 53	Oakland, 1/2-lb bots. doz	4 00
Camphor, boxes 24 to lb. lb	1 56	Oakland, 1/4-lb bots. doz	2 25
Camphor, powd. lb	1 65	Oakland, 5-lb bots. ea	1 59
Catechu, refined. lb	18	HYDRO NAPHTHOL. oz	75
Catechu, powd. lb	30	HYDRASTINE, Alkaloid, Merck's. oz	10 04
Copal. lb	35	Hydrochloride, Merck's. oz	10 04
Damar. lb	38	HYDRASTININE, Hydrochloride, Merck's,	
Galbanum. lb	1 00	15-gr vials. ea	2 10
Gamboge. lb	1 20	HYDROQUINONE, Merck's. oz	18
Gamboge, powd. lb	1 25	HYOSCINE, Amorphous, Merck's, 15-gr	
Guaiac. lb	35	vials. ea	2 00
Guaiac, powd. lb	40	Hydrobromate, 5-gr vials, Merck's. ea	2 00
Kino, true. lb	75	Hydriodide, 5-gr vials, Merck's. ea	2 00
Kino, true, powd. lb	80	Sulphate, 5-gr vials, Merck's. ea	2 00

HYOSCYAMINE, Alkaloid, crys., Merck's, 15-gr vials. ea	4 75	Sulphate, pure, cryst., M. C. W.....lb	20
Amorphous, Merck's. gr	25	Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13
Hydrobromate, Amorph., Merck's, 15-gr..ea	3 00	Tannate, 1-oz vials, M. C. W.....oz	22
Sulphate, crys., Merck's, 15-gr.....ea	3 03	Tartrate and Ammonia, M. C. W.....oz	11
Sulphate, Amorph., 5-gr vials, Merck's....ea	1 25	Tartrate and Ammonia, M. C. W.....lb	72
IATROL. oz	95	Tartrate and Potassium, M. C. W.....oz	10
ICHTHARGAN, Merck's. oz	3 00	Tartrate and Potassium, scale, M. C. W...lb	58
ICHTHOFORM, Merck's. oz	1 00	Tersulphate, sol., U. S. P.....lb	40
ICHTHYOL, 1-oz vials, Merck's.....oz	32	Valerianate. oz	22
1/4s, Merck's. oz	4 25	IODOTHYRINE. oz	3 40
1/2s, Merck's. oz	4 10	ISINGLASS, American. lb	1 25
1s, Merck's. oz	4 00	Russian. lb	5 25
INDIGO, Manila, extra.....lb	75	KAMALA. lb	65
IODIPIN (10% Iodized Sesame oil), Merck's. oz	28	Powd. lb	75
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47	KAOLIN.....	10
Chloride, 1-oz vials, M.C.W.....oz	52	KERATIN (Pepsinized), Merck's, 1/8s.....oz	3 53
Resublimed, 1-oz vials, M. C. W.....oz	35	KOUSSO. lb	75
Resublimed, M. C. W.....lb	3 53	Powd.....lb	75
Burnham's, soluble. oz	1 00	KRYOFINE. oz	1 00
IODOFORM, bulk, M. C. W.....lb	3 85	LACTUCARIUM, Merck's. oz	54
Cryst. or powd., Merck's.....oz	34	LACTOPHEPIN. oz	1 00
Deodorized. oz	54	LANOLIN. lb	80
IODOL. oz	1 25	Lanae Adeps, 1-lb cans, B. J. D.....lb	35
IRON, Acetate, dry, 1-oz vials, M.C.W....oz	24	Lanae, British. lb	35
Acetate, liquor. lb	44	LANUM (Adeps Lanae Hydrosus), Merck's.lb	40
Albuminate. oz	20	LARD, Benzoated, 5-lb cans.....lb	28
Ammoniated, M. C. W.....lb	44	LARGIN, Merck's oz	1 75
And Ammonium Cit., Merck's.....lb	79	LEAD, Acetate, med. crys. or gran., Merck's. lb	33
Arseniate, 1-oz vials. oz	18	Acetate, white. lb	18
By Hydrogen, Merck's.....lb	58	Acetate, white, powd.....lb	25
Carbonate, precipitated. lb	18	Acetate, purified, gran., 1-lb cart., M.C.W.lb	33
Carbonate, proto. lb	42	Bromide. oz	24
Carbonate, saccharated. lb	45	Carbonate.....lb	12
Chloride, 1-oz vials.....oz	8	Chloride, 1-oz vials.....oz	11
Chloride, crystal. lb	34	Chromate, M. C. W.....lb	1 19
Chloride, sol. for tincture.....pt	35	Iodide, 1-oz vials, M. C. W.....oz	27
Citrate, soluble, 1-oz vials.....oz	11	Nitrate, 1-lb boxes, M. C. W.....lb	23
Citrate, soluble, M. C. W.....lb	80	Nitrate, chemically pure, M. C. W.....lb	40
Citrate and Quinine, sol., M. C. W....lb	2 00	Oxide, chemically pure, M. C. W.....lb	84
Citrate and Quinine with Strych., M.C.W.lb	2 55	Oxide, Merck's. lb	84
Citrate and Quinine with Strych., M.C.W.oz	26	Subacetate, sol. lb	35
Citrate and Strychnine, 1-oz vials, M.C.W.oz	13	Sulphate, pure, M. C. W.....lb	63
Ferrocyanide, 1-oz vials, M. C. W.....oz	10	Tannate, 1-oz vials, M. C. W.....oz	24
Ferrocyanide, M. C. W.....lb	65	LEAVES, Aconite, German.....lb	30
Filings.....lb	16	Aconite, powd. lb	30
Glycerino Phosphate. oz	32	Aconite, pressed.....oz	25
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Angelica, pressed. oz	25
Iodide, 1-oz vials, M. C. W.....oz	36	Bay, bulk. lb	15
Lactate, 1-oz vials, M. C. W.....oz	10	Belladonna, English, bts.....lb	1 25
Lactophosphate, 1-oz vials, M. C. W.....oz	19	Belladonna. lb	30
Nitrate, sol., U. S. P., M. C. W.....lb	34	Belladonna, powd. lb	35
Oxide, black. lb	49	Belladonna, pressed. oz	35
Oxide, brown, com'l, Merck's.....lb	22	Blessed Thistle, pressed.....oz	34
Oxide, brown, pure, Merck's.....lb	74	Borage, pressed. oz	35
Peptonized, Merck's. oz	24	Buchu, long. lb	55
Phosphate, precipitate. lb	39	Buchu, short. lb	40
Phosphate, U. S. P., scales.....oz	11	Buchu, powd. lb	40
Phosphate, U. S. P., scales.....lb	65	Buckbean, pressed oz	30
Pyrophosphate, soluble, Merck's.....lb	77	Cocoa.....lb	45
Pyrophosphate, U. S. P., 1880.....oz	11	Conium. lb	30
Pyrophosphate, U. S. P., 1880.....lb	77	Conium, powd. lb	35
Reduced (Quevenne's) lb	58	Conium, pressed. oz	30
Reduced (Quevenne's) oz	10	Coltsfoot, pressed. oz	25
Salicylate, 1-oz vials, M. C. W.....oz	15	Damiana.....lb	30
Subsulphate, M. C. W.....oz	6	Digitalis, pressed. oz	35
Subsulphate, M. C. W.....lb	36	Digitalis. lb	35
Subsulphate, sol., M. C. W.....lb	23	Digitalis, powd. lb	35
Succinate, Merck's. oz	54	Eucalyptus. lb	20
Sulphate, dried. lb	20	Grindelia Robusta lb	25
Sulphate, gran., pure.....lb	18	Grindelia Squarosa lb	40
		Hemlock, pressed. oz	30

Henna.	lb	50	Iodide, M. C. W.	oz	47
Henna, powd.	lb	55	Sulphite, Mallinckrodt's	lb	49
Henbane.	lb	30	MANGANESE, Black, Oxide	lb	8-10
Henbane, powd.	lb	30	Phosphate, M. C. W.	oz	18
Henbane, pressed, oz.	lb	30	Carbonate, 1-oz vials, M. C. W.	oz	14
Jaborandi.	lb	35	Chloride, 1-oz vials, M. C. W.	oz	14
Jaborandi, powd.	lb	40	Hypophosphite, 1-oz vials, M. C. W.	oz	20
Laurel.	lb	25	Hypophosphite, Merck's.	oz	20
Lovage, pressed, oz.	lb	30	Iodide, 1-oz vials, M. C. W.	oz	47
Lungwort, pressed, oz.	lb	34	Peptonized, Merck's.	oz	29
Marjoram, sweet	lb	36	Phosphate, M. C. W.	oz	18
Rosemary, bulk.	lb	20	Sulphate, 1-oz vials, M. C. W.	oz	9
Rosemary, pressed, oz.	lb	23	MANNA, Large flake	lb	90
Sage, oz.	lb	25	Small flake.	lb	60
Savin, pressed, oz.	lb	25	MENTHOL.	oz	35
Senna, Alexandria, garbeled.	lb	30	Cryst., 1-oz vials, Mallinckrodt's.	oz	35
Senna, Alexandria, powd.	lb	30	Crystallized.	lb	3 85
Senna, Tinnevely, select.	lb	25	MERCURY, Chloride, Merck's.	lb	99
Stramonium, powd.	lb	30	Ammoniate, d white precip.	lb	1 25
Stramonium, pressed, oz.	lb	24	Bisulphate.	lb	75
Thyme, pressed, oz.	lb	24	Cyanide.	oz	31
Uva, Ursi.	lb	20	Iodide, Green, Merck's	oz	24
Witch Hazel, pressed, oz.	lb	23	Iodide, green, 1-oz vials, M. C. W.	oz	24
LEECHES.	ea	10	Iodide, Red, Merck's.	oz	26
2 dozen lots.	ea	8	Iodide, red, 1-oz vials, M. C. W.	oz	26
LEPTANDRIN.	oz	35	Iodide, Yellow, Merck's.	oz	24
LIME, Chloride, 35-lb cans.	lb	5	Iodide, yellow, 1-oz vials, M. C. W.	oz	24
Chloride, in bbls of 350 lbs.	lb	2 1/4	Nitrate, proto., 1-oz vials, M. C. W.	oz	27
Chloride, lb cans.	doz	1 00	Nitrate, solution, 1-oz vials.	oz	27
Chloride, 1/2-lb cans.	doz	65	Oxide, black, 1-oz vials.	oz	18
Chloride, 1/4-lb cans.	doz	45	Oxide, red (red precip.)	lb	1 20
LITHARGE.	lb	12	Oxide, yellow, 1-oz vials.	oz	18
LITHIUM, Benzoate, 1-oz vials, M. C. W.	oz	16	Salicylate, M. C. W.	oz	27
Bromide, Merck's.	oz	24	Subsulphate, 1-oz vials.	oz	15
Bromide, 1-oz vials, M. C. W.	oz	24	Subsulphate.	lb	1 06
Carbonate, Merck's.	oz	20	Sulphuret, black.	lb	78
Citrate, 1-oz vials, M. C. W.	oz	18	With Chalk, 1-lb cartons.	lb	50
Citrate, cryst. or powd., Merck's.	oz	18	METHYL, SALICYLATE.	lb	80
Iodide, Merck's.	oz	38	METHYLENE, Blue Medicinal, Merck's.	oz	60
Salicylate, 1-oz vials, M. C. W.	oz	16	MORPHINE, Sulphate, 1/8s, 2 1/2-oz box, ...		
LITMUS.	lb	50	Merck's	oz	3 05
Paper.	doz	50	Sulphate, 1-oz bottles, Merck's	oz	2 85
LODESTONE.	lb	75	Sulphate, 5-oz can, Merck's.	oz	2 80
LONDON PURPLE.	lb	20	Sulphate, 1/8s, oz box, Merck's.	oz	3 10
LOSOPHAN.	oz	1 80	Sulphate, 1/8s, 1-oz box, M. C. W.	oz	3 10
LUPULIN, German.	lb	75	Sulphate, 1/8s, 2 1/2-oz box, M. C. W.	oz	3 05
LYCOPODIUM.	lb	75	Sulphate, 1-oz vials, M. C. W.	oz	2 85
LYCETOL.	oz	4 25	Sulphate, 5-oz can, M. C. W.	oz	2 80
LYSOL, 1-gal. jugs.	gal	4 00	In 10-oz lots, 10c oz less.		
Pints.	doz	8 00	Morphia, Acetate, 1/8s, M. C. W.	oz	3 30
MACE.	lb	75	Morphia, Muriate, 1/8s, M. C. W.	oz	3 30
Powd.	lb	75	Morphia, Valerianate, 1/8s, M. C. W.	oz	4 30
MADDER, Dutch.	lb	15	Other salts or Morphine subject to market price based on above.		
MAGNESIUM, Benzoate, Mallinckrodt's.	oz	24	MOSS, Iceland.	lb	18
Bromide, Mallinckrodt's.	oz	25	Irish.	lb	15
Calcined, Jennings', 1-lb cans.	lb	85	Irish, bleached.	lb	20
Calcined, K. & M.'s, 1-lb cans.	lb	75	MUSK, Chinese.	oz	40
Calcined, K. & M.'s, heavy.	lb	80	Tonquin, grain.	dr	3 00
Carbonate, Jennings', 2-oz.	lb	35	MUSTARD, Colman's, 4-oz cans.	doz	1 75
Carbonate, Jennings', 4-oz.	lb	35	Colman's, 16-lb cans.	lb	50
Carbonate, K. & M.'s, 1-oz.	lb	27	Yellow, Imperial, 5-lb cans.	lb	18
Carbonate, K. & M.'s, 2-oz.	oz	23	NAPHTHALIN, Balls.	lb	5-7
Carbonate, K. & M.'s, 4-oz.	lb	23	Resublimated, Merck's.	lb	27
Carbonate, K. & M.'s, small sq.	lb	60	Pure, 1-lb cartons, M. C. W.	lb	27
Carbonate, powd., in 65-lb bbls.	lb	13	NAPHTHOL, Alpha.	oz	30
Carbonate, powd., in 10-lb boxes.	lb	16	Beta.	oz	10
Citrate, dry, English.	lb	65	NICKEL, Bromide, Merck's.	oz	32
Citrate, sol.	doz	1 75	Bromide, 1-oz vials, M. C. W.	oz	32
Glycerinophosphate, Merck's.	oz	44	Nickel and Ammonia Sulphate, M. C. W.	lb	34
Hypophosphite, 1-oz vials, M. C. W.	oz	20	Sulphate, 1-oz vials, M. C. W.	oz	10
Hypophosphite, M. C. W.	lb	1 69	Sulphate, Merck's.	oz	10
Hypophosphite, Merck's.	oz	20			

NOSOPHEN.	doz	4 50	Juniper Berries.	lb	1 25-1 50
NUTGALLS, Aleppo.	lb	30	Juniper, wood.	lb	75
Aleppo, ground.	lb	35	Lard.	gal	1 10
Aleppo, powd.	lb	35	Laurel, expressed.	lb	60
NUTMEGS, Macassar, large.	lb	60	Lavender, Flowers.	lb	3 50
Penang, powd.	lb	65	Lavender, Garden.	lb	1 25
NUTS, Areca	lb	30	Lemon.	lb	2 25
Areca, powd.	lb	40	Lemon, Sanderson's.	lb	2 45
Kola.	lb	35	Lemon Grass.	lb	4 00
Kola, powd.	lb	40	Linseed, raw.	gal	66
NUX VOMICA.	lb	25	Linseed, raw.	case	61
Powdered or rasped.	lb	25	Linseed, boiled.	gal	68
OAKUM	lb	15	Linseed, boiled.	case	63
Surgeon's.	lb	20	Mace, expressed.	lb	1 75
OIL, Almonds, Bitter, true, Merck's.	lb	6 59	Male Fern, ethereal.	oz	35
Almonds, Bitter, Allen's.	oz	75	Myrbane.	lb	40
Almonds, Sweet, Allen's.	lb	75	Mullein.	oz	45
Almonds, Sweet.	lb	45-60	Musk, alcoholic.	oz	1 00
Amber, rectified.	lb	60	Mustard, essential.	oz	50
Anise.	lb	2 00-2 25	Mustard, expressed.	gal	90
Bay Leaves, true.	oz	40	Neatsfoot, No. 1.	gal	90
Bay Leaves.	lb	4 00-4 25	Neroli, Petal.	oz	3 00
Benne.	gal	1 20	Neroli, Bigarade.	oz	5 75
Bergamot, Sanderson's	lb	3 50	Neroli, Petit Grain.	oz	55
Birch Tar, rectified.	lb	1 25	Nutmegs, essential.	oz	35
Cade.	lb	50	Olive, pure, Malaga.	gal	1 25
Cajuput (21-oz bottles).	lb	1 10-1 35	Olive, California.	gal	3 00
Calamus.	oz	45	Olive, small	doz	3 75
Camphor, E. I.	lb	45	Olive, ½-gals.	gal	3 25
Caraway, seed.	lb	2 25	Olive, large.	doz	7 50
Cardamon.	oz	2 50	Olive, imported.	gal	2 00-2 10
Cassia.	lb	1 50-1 75	Orange, bitter.	lb	4 50
Castor, Baker's A. A.	gal	1 38-1 50	Orange, sweet.	lb	3 00
Castor, Marsh's.	1 34-1 45		Origanum, pure.	lb	60
Castor, 2-oz bottles.	doz	85	Origanum, Chris.	lb	1 85
Castor, 4-oz bottles.	doz	1 25	Palm.	lb	25
Castor, 6-oz bottles.	doz	1 75	Patchouly.	oz	75
Castor, 8-oz bottles.	doz	2 25	Pennyroyal.	lb	4 50
Castor, 12-oz bottles.	doz	2 50	Pepper, black.	oz	20
Castor, 16-oz bottles.	doz	3 75	Peppermint, Hotchkiss.	lb	3 75-4 00
Cedar	lb	60-100	Peppermint, Wayne Co.	lb	3 50-3 75
Cedrat.	oz	40	Peppermint, Western.	lb	3 50-3 75
Celery.	oz	1 40	Pimento.	oz	30
Chamomile, German.	oz	5 00	Pinus, Sylvestris, German.	lb	1 50
Chamomile, Roman.	oz	1 75	Pinus, Pumilio.	lb	4 50
China, Nut.	gal	1 00	Pinus Pumilio.	oz	40
Cinnamon, Ceylon.	oz	90	Rhodium	oz	35
Citronella.	lb	75-90	Rose, Kizanlik.	oz	5 75
Cloves.	lb	1 75-2 00	Rosemary, flowers.	lb	1 25-1 50
Cocanut.	lb	25	Rue.	oz	40
Codliver, White, Norwegian.	gal	1 80	Sandalwood, English.	lb	5 50
Codliver, white, Norwegian, 5-gal cans.	gal	1 65	Sandalwood, German.	lb	3 00-3 20
Codliver, white, Newfoundland.	gal	1 40	Sassafras.	lb	90-1 00
Cognac, green.	oz	2 50	Savin.	lb	1 75
Cologne.	oz	50	Spearmint.	lb	4 00
Copaiba.	lb	1 75	Sperm.	gal	1 00
Coriander.	oz	90	Spike.	lb	35
Cotton Seed (salad), 5-gal can.	gal	1 05	Spruce.	lb	85
Cotton Seed (salad), 1-gal can.	gal	1 35	Tansy.	lb	4 75
Croton, 24-oz bots.	lb	1 35-1 50	Tar.	lb	25
Croton	oz	20	Thyme, white.	lb	1 50
Cubebs.	lb	1 60-1 70	Turpentine, pure.	lb	55
Ergot, Keith's.	oz	57	Wine, light.	oz	40
Erigeron, Keith's.	oz	38	Wine, heavy.	oz	50
Erigeron.	lb	1 60	Wintergreen.	lb	3 50-3 75
Eucalyptus.	lb	80	Wormseed.	lb	3 75-4 00
Fennel Seed.	lb	2 00	Wormwood.	lb	4 00-4 25
Fusil, purified.	lb	80	Ylang Ylang.	oz	4 50
Geranium, Rose, Chris.	oz	75	OINTMENT, Basilicon.	lb	65
Hemlock.	lb	65	Citrine.	lb	65
Hydrocarbon.	gal	1 25	Iodine.	lb	1 25
Jasmin, alcoholic.	lb	3 00	Mercurial, ½ m.	lb	65

Mercurial, $\frac{1}{3}$ m.....lb	55	Arsenate, 1-oz vials, Merck's.....oz	14
Stramonium. lb	75	Bicarbonate, cryst., M. C. W.....lb	20
Tar.....lb	50	Bicarbonate, cryst., H. P., Merck's.....lb	34
Zinc, benzoated. lb	65	Bicarbonate, granulated, M. C. W.....lb	20
Zinc, oxide. lb	65	Bicarbonate, powd. lb	20
OPIUM, powd., Merck's. lb	5 80	Bichromate lb	18-20
ORTHOFORM. oz	1 40	M. C. W. lb	34
PANCREATIN, Merck's, pure.....oz	44	Bromide, crys. or gran., 5-lb bxs, M.C.W..lb	32
Pure, scales, P. D. & Co.....oz	50	Carbonate, purified, M. C. W.....lb	41
PAPAIN, Boehringer. oz	75	Carbonate, bulk. lb	15
Merck's. oz	60	Caustic, pure, Merck's.....lb	37
PARAFFINE, refined. lb	12-15	Caustic, C. P., Merck's.....lb	2 59
PARALDEHYDE, Merck's. lb	99	Chlorate, cryst. lb	16-18
Merck's. oz	14	Chlorate, gran., pure, M. C. W.....lb	22
PARIS GREEN. lb	38-42	Chlorate, powd. lb	16-18
PASTILLES, Fumigating, black.....lb	50	Chromate, yellow, neutral. lb	40
Fumigating, red lb	50	Chromate, yellow, H. P., Merck's.....lb	69
PEARL ASH. lb	8-10	Citrate, M. C. W.....lb	72
PEEL, Orange, sweet, ground.....lb	25	Citrate, H. P., Merck's.....lb	1 19
Orange, bitter, coarse.....lb	20	Cyanide, fused, M. C. W.....lb	45
Orange, bitter, powdered.....lb	25	Cyanide, C. P. 99%.....lb	52
Orange, sweet, quarters.....lb	20	Cyanide, Miner's, 10-lb tin.....lb	28
PELLETIERINE, Sulphate, Merck's, 15-gr vial	1 75	Ferricyanide, chem. pure, M. C. W.....lb	1 34
Tannate, Merck's, 15-gr vial.....	40	Ferrocyanide, pure, Merck's.....lb	59
PEPPER, black, Singapore, sifted.....lb	30	Glycerinophosphate. oz	29
Black, powd. lb	30	Hypophosphite, purified, Merck's.....lb	1 14
White. lb	40	Hypophosphite, M. C. W.....lb	99
White, powd. lb	40	Iodide, M. C. W., 1-lb boxes.....lb	2 65
PEPSIN, pure, U. S. P.....lb	4 50	Nitrate, cryst. lb	10-12
Powd. or scales. lb	4 50	Nitrate, granulated. lb	10-12
Powd., Ph. G. III.....oz	25	Nitrate, chemically pure, M. C. W.....lb	30
PHENACETINE. oz	33	Oxalate, neutral. lb	28
PETROLATUM, 1-lb cans.....doz	2 00	Permanganate, cryst., 1-oz vials.....oz	8
50-lb pails. lb	7	Penmanganate, large cryst., pure, M.C.W..lb	34
25-lb pails. lb	7½	Permanganate, small cryst.....lb	25
10-lb cans. lb	9	Phosphate, 1-oz vials.....oz	11
5-lb cans. lb	10	Phosphate lb	64
Snow White, 50-lb pails.....lb	15½	Prussiate, red. lb	65
Snow White, 25-lb pails.....lb	16½	Prussiate, yellow. lb	35
Snow White, 10-lb cans.....lb	18	Sulphate, cryst. or powd.....lb	16
Snow White, 5-lb cans.....lb	25	Sulphate, chemically pure.....lb	60
Snow White, 1-lb cans.....lb	30	Sulphide (Liver Sulphur).....lb	24
PEPTONE, Merck's, dry, from meat.....oz	34	Sulphurated, Merck's. lb	25
PHENILINE. oz	1 00	Tartrate (soluble Tartar).....lb	59
PHENOLPHTHALEIN oz	39	POWDER, Antimonial. lb	85
PHOSPHORUS, 1-lb cans.....lb	85	Aromatic. lb	1 25
½-lb cans.....lb	95	Carbolic Acid, disinfecting.....doz	1 50
¼-lb cans.....lb	1 05	Chalk, aromatic. lb	75
Amorphous. lb	1 44	Chalk, compound. lb	75
PIPERAZIN, Schering's 10-gm vials.....bot	1 50	Chalk and Opium. lb	2 50
½-oz and 1-oz.....oz	4 25	Composition, 2-oz papers.....lb	35
PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62	Dover's. lb	1 25
Merck's. oz	62	Insect, Buhach, 6-lb cans.....lb	60
PIPE CLAY. lb	12	Insect, Dalmatian. lb	25-30
PITCH, Burgundy. lb	12	Insect, Mrs. Hill's, 6-lb cans.....lb	35
PITH, Sassafras. lb	1 50	Jalap, comp. lb	1 00
PLATINUM and Barium Cyanide, cr.,		Licorice, comp. lb	25
Merck. gr	14	Licorice, comp., 2-oz packages.....doz	75
And Potassium Chloride, M'k's, 15-gr		Rhubarb, comp. lb	1 50
vials. ea	80	Tooth. lb	50
Chloride, Merck's. oz	18 00	PROPYLAMIN, 10% solution, Merck's....oz	55
Chloride, solution, 10%, Merck's.....oz	3 07	Hydrochlorate, ½-oz vials. oz	3 50
PODOPHYLLIN oz	30	PROTARGOL. oz	1 25
POPPY HEADS, German. lb	30	PULVIS ANTIMONIALIS. lb	85
POTASH, Babbitt's, 4 doz in case.....case	3 40	PYOKTANIN, Blue or Yellow, Merck's...oz	1 50
Caustic, pure, by alcohol.....lb	60	PYRIDINE, Merck's. oz	32
Caustic, white. lb	37	QUICKSILVER. lb	80
Caustic, 10-lb cans.....lb	10-12	QUINACETINE. oz	85
Solution (liq. potass.) lb	35	QUINALGIN. oz	1 25
POTASSIUM, Acetate, Merck's, 1-lb bot...lb	42	QUININE, Alkaloid, 1-oz vials, M. C. W...oz	59
Acetate, M. C. W., 1-lb.....lb	42	Bisulphate, 1-oz vials, M. C. W.....oz	29
Antimonate, Merck's. lb	1 09	Bisulphate, 5-oz cans, M. C. W.....oz	27

Citrate, 1-oz vials, M. C. W.....oz	58	Golden Seal. lb	75
Muriate, 1-oz vials, M. C. W.....oz	52	Golden Seal, pressed. lb	75
Phosphate, 1-oz vials, M. C. W.....oz	56	Golden Seal, powd. lb	75
Salicylate, 1-oz vials, M. C. W.....oz	55	Hellebore, black, pressed.....lb	20
Sulphate, 1-oz cans, M. C. W.....oz	30	Hellebore, black, powd.....lb	25
Sulphate, 5-oz cans, M. C. W.....oz	27	Hellebore, white, pressed, lb.....lb	22
Sulphate, 25-oz cans, M. C. W.....oz	23	Hellebore, white, powd.....lb	25
Sulphate, 50-oz cans, M. C. W.....oz	22	Indian Hemp, black, pressed, lb.....lb	35
Sulphate, 100-oz cans, M. C. W.....oz	20	Indian Hemp, black, powd lb	40
Tannate, Neutral, Merck's. oz	38	Indian Hemp, white, pressed lb	25
Tannate, 1-oz vials, M. C. W.....oz	38	Indian Hemp, white, powd lb	30
Valerianate, 1-oz vials, M. C. W.....oz	58-66	Ipecac, Rio, powd.....lb	2 50
QUINOLINE, Merck's oz	45	Jalap lb	30
Tartrate, Merck's oz	45	Jalap, powd lb	35
RED SAUNDERS. lb	12	Kava Kava lb	50
RESIN, Jalap, Merck's.....oz	54	Ladies' Slipper, pressed, lb.....lb	28
Copaiba. lb	50	Licorice, select lb	16
Scamony oz	85	Licorice, pipestem lb	18
RESORCIN, cryst., Merck's oz	18	Licorice, cut, Russian lb	20
Resublimed, H. P., Merck's.....oz	66	Licorice, powd lb	16-20
M. C. W.....lb	50	Mandrake, pressed, lb.....lb	30
M. C. W.....oz	19	Mandrake, powd lb	35
ROOT, Abscess, pressed, lb.....lb	40	Marshmallow, cut lb	34
Aconite, powd.....lb	35	Marshmallow, powd lb	35
Aconite, pressed.....lb	32	Musk lb	30
Alkanet lb	25	Orris, Florentine lb	25
Alkanet, powd.....lb	30	Orris, Florentine, Fingers.....lb	25
Angelica, pressed lb	20	Orris, Florentine, granulated.....lb	35
Angelica, powd lb	25	Orris, Florentine, powd.....lb	30
Arnica, pressed lb	35	Pareira Brava, pressed lb	34
Belladonna, pressed, lb. lb	25	Pink. lb	85
Belladonna, powd.....lb	28	Pink, powd. lb	90
Berberis Aquif, pressed, lb.....lb	35	Pleurisy, pressed lb	25
Beth, pressed, lb.....lb	30	Poke, pressed lb	15
Beth, powd lb	35	Poke, powd lb	20
Blackberry, pressed, lb.....lb	30	Pond Lily, white, pressed lb	40
Blood, pressed, lb.....lb	30	Pond Lily, white, powd lb	40
Blood, powd.....lb	35	Pond Lily, yellow, pressed lb	30
Blue Flag, pressed lb	25	Pond Lily, yellow, powd lb	35
Burdock, pressed, lb. lb	25	Rhatany lb	30
Burdock, powd.....lb	25	Rhatany, powd lb	35
Calamus, peeled lb	30	Rhubarb, East India lb	75
Calamus, white, peeled and split.....lb	50	Rhubarb, East India, powd lb	75
Calamus, powd.....lb	35	Rhubarb, cut in cubes, No. 1.....lb	25
Cohosh, black, pressed. lb	25	Rhubarb, cut in cubes, No. 2.....lb	00
Cohosh, black, powd. lb	25	Rhubarb, cut in fingers, No. 1.....lb	50
Cohosh, blue, pressed, lb.....lb	25	Rhubarb, cut in fingers, No. 2.....lb	25
Cohosh, blue, powd.....lb	25	Salep, powd lb	00
Colchicum lb	28	Sarsaparilla, American lb	24
Colchicum, powd lb	35	Sarsaparilla, American, powd lb	30
Columbo, foreign. lb	25	Sarsaparilla, Honduras. lb	65
Columbo, powd.....lb	25	Sarsaparilla, Honduras, ground.....lb	70
Comfrey, pressed, lb. lb	25	Sarsaparilla, Honduras, powd.....lb	70
Comfrey, powd.....lb	25	Sarsaparilla, Mexican lb	25
Cranesbill, pressed, lb.....lb	25	Sarsaparilla, Mexican, ground lb	25
Culvers, pressed, lb.....lb	25	Sarsaparilla, Mexican, powd lb	30
Culvers, powd lb	30	Senega, pressed lb	90
Dandelion, Am., pressed, lb.....lb	25	Senega, powd lb	95
Dandelion, powd lb	30	Silkweed, pressed lb	28
Dwarf Elder, pressed, lb.....lb	35	Skunk Cabbage, pressed lb	30
Elecampane, pressed, lb. lb	25	Skunk Cabbage, powd lb	35
Elecampane, powd lb	20	Snake, Canada, pressed lb	50
Gelsemium, pressed, lb.....lb	21	Snake, Virginia. lb	60
Gelsemium, powd lb	25	Snake, Virginia, powd. lb	65
Gentian lb	16	Spikenard, pressed lb	72
Gentian, ground lb	20	Spikenard, powd lb	30
Gentian, powd lb	20	Squills, white, sliced. lb	20
Ginger, African. lb	17	Squills, powd lb	60
Ginger, African, powd lb	18	Stillingia, pressed lb	25
Ginger, Jamaica, bleached. lb	27	Stillingia, powd lb	30
Ginger, Jamaica, bleached, powd.....lb	30	Stone, pressed lb	21
Ginseng lb	8 50-10 00	Sweet Flag, pressed lb	25

Turkey Corn	lb	28	Larkspur.	lb	55
Unicorn, true, pressed	lb	35	Lobelia.....	lb	60
Unicorn, true, powd	lb	40	Lobelia, powd.	lb	65
Unicorn, false, pressed.....	lb	40	Millet, American.	lb	6-8
Unicorn, false, powd	lb	45	Mustard, black, Trieste	lb	10-12
Valerian, English, bulk.....	lb	35	Mustard, white	lb	10-10
Valerian, English, powd	lb	35	Poppy Blue	lb	16
Valerian, German	lb	30	Pumpkin	lb	22
Valerian, German, powd	lb	30	Rape, California.	lb	6-8
Yellow Dock	lb	25	Sabadilla	lb	35
Yellow Dock, ground	lb	30	Sabadilla, powd	lb	30-35
Yellow Dock, powd	lb	30	Stavesacre	lb	40
Zedoary	lb	30	Stavesacre, powd	lb	45
ROSIN, No. 1.	lb	6-8	Stramonium	lb	25
Barrel.		7 75	Stramonium, powd	lb	30
ROUGE, Jewelers'	lb	50	Sunflower	lb	15
SACCHARIN	oz	20	Watermelon	lb	25
SAFFRON, American.	lb	1 00	Worm, American	lb	25
Spanish.	oz	80	Worm, American, powd	lb	25
Spanish.	lb	9 50	Worm, Levant	lb	35
SAL, Acetosella	lb	45	Worm, Levant, powd	lb	40
Epsom	lb	2 1/2-5	SEIDLITZ MIXTURE	lb	28-30
Glauber	lb	1 1/2-4	SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19
Nitre	lb	10-12	Chloride, 1-oz vials, M. C. W....	oz	84
Nitre, granulated.	lb	10-12	Cyanide, 1-oz vials, M. C. W....	oz	1 04
Nitre, powd.	lb	10-12	Iodide, 1-oz vials, M. C. W....	oz	1 04
Prunelle	lb	45	Lactate, Merck's	oz	1 04
Rochelle.	lb	28-30	Nitrate, cryst., 1-oz vials, M. C. W....	oz	58
Soda.	lb	3-5	Nitrate, cones, 1-oz vials.....	oz	70
Tartar.	lb	15	Nitrate, fused (Lunar caustic), 1-oz vials,		
SALICINE, Merck's.....	oz	37	M. C. W.	oz	61
Salicine	lb	4 60	Nitrate, fused, No. 2, 1-oz vials.....	lb	48
SALIPYRINE	oz	1 00	SNUFF, Garrett's, 1-oz tins.....	doz	60
SALOL, Mallinckrodt's.....	oz	15	Garrett's, 1 1/3-oz tins.	doz	1 10
Salol, Mallinckrodt's, cartons	lb	1 17	Garrett's, 3 1/3-oz tins.....	doz	1 75
Salol, Merck's	lb	1 25	Garrett's, 6-oz bots.....	doz	3 25
Salol, Merck's	oz	15	Maccaboy, 3 1/3-oz bots.....	doz	2 00
SALOPHEN	oz	1 00	Rappee	lb	65
SANTONIN, bulk, M. C. W.....	lb	13 09	Rappee, 3 1/3-oz bots.....	doz	2 00
Cryst., Merck's	oz	91	Scotch, Lorillard's	lb	65
1-oz vials, M. C. W.....	oz	94	Scotch, Lorillard's	doz	2 00
SEED, Angelica	lb	25	Scotch, Garrett's Bladders.....	lb	55
Anise, Italian	lb	20	SOAP, Castile, Conti's, white, box 14c less..	lb	17
Anise, Italian, powd.....	lb	25	Castile, mottled, box 8 1/2c; less.....	lb	12
Anise, Star	lb	45	Castile, Kirk's (San Bernaldo) white, 18		
Bird, mixed, bulk.	lb	8	bars	per box	3 00
Bird, mixed, boxes.	doz	1 00	Castile, powdered, white.....	lb	35
Bird, mixed, cases, 30 pks.....		2 25	Green, German	lb	25
Burdock	lb	25	Opodeldoc	lb	20
Canary	lb	9-10	SODA, Ash.	lb	2 1/2-5
Carraway, Dutch.	lb	15	Caustic, Sticks, Merck's.....	lb	34
Carraway, powd.	lb	17	Caustic, com., drums.....	lb	3-4
Cardamon, Malabar.	lb	1 00	Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2
Cardamon, Mangalor, bleached.....	lb	1 25	Caustic, purified, fused.....	lb	40
Cardamon, powd.	lb	1 00	Sal (carbonate) bbls., 1 1/4c.....	lb	3
Celery	lb	25	Soda Silicate, dry	lb	35
Colchicum.	lb	50	Soda Silicate, liquid.....	lb	15-25
Colchicum, powd.	lb	55	SODIUM, 1-oz vials, M. C. W.....	oz	25
Conium	lb	25	Acetate, M. C. W., carton.....	lb	17
Coriander, German.	lb	14	Arsenate, 1-oz vials.....	oz	9
Coriander, German, powd	lb	20	Arsenite, 1-oz vials, M. C. W.....	oz	10
Cumin	lb	18-20	Benzoate, 1-oz vials, M. C. W.....	oz	11
Dill	lb	25	Benzoate, 1-lb bots.	lb	56
Fennel.	lb	18	Benzoate, true fr. Gum Benzoin, Merck's..	oz	29
Fennel, powd.	lb	20	Bicarbonate, C. P., powd., M. C. W.....	lb	15
Flax, recleaned.	lb	5 1/2-6	Bicarbonate, kegs, 3c.....	lb	4-5
Flax, ground.	lb	5 1/2-6	Bisulphite, dry, pure, Merck's.....	lb	27
Flax Oil Cake	lb	2 1/2-3 1/2	Borate, neutral, Merck's.....	oz	19
Foenugreek, powd	lb	12	Bromide, M. C. W.	lb	35
Hemp, recleaned	lb	6 1/2-8	Cacodylate, Merck's	oz	1 40
Henbane	lb	35	Carbonate, pure cryst., 1-lb car., M. C. W..	lb	11

Carbonate, pure gran., 1-lb car., M. C. W.	lb	11	Salicylate, M. C. W.	lb	83
Carbonate, dried, C. P., 1-lb car.	lb	27	Sulphate, M. C. W.	lb	79
Cinnamate	oz	59	STYPTICIN, Merck's	oz	6 50
Citrate, M. C. W.	lb	74	STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.	oz	1 70
Glycerophosphate, 75%, Merck's	oz	28	Arsenate, 1/8-oz vials, M. C. W.	oz	1 70
Glycocholate.	oz	1 04	Bromide, 1/8-oz vials, M. C. W.	oz	1 70
Hypophosphite, purified, Merck's	lb	1 14	Citrate, 1/8-oz vials, M. C. W.	oz	1 70
Hypophosphite, 1-oz vials, Merck's	oz	15	Crystals, 1/8-oz vials, M. C. W.	oz	1 45
Hyposulphite, 112-lb kegs.	lb	3	Hypophosphite, 1/8-oz vials, M. C. W.	oz	1 95
Hyposulphite, less	lb	5	Muriate, 1/8-oz vials, M. C. W.	oz	1 70
Iodide, 1-oz vials, M. C. W.	oz	31	Nitrate, 1/8-oz vials, M. C. W.	oz	1 70
Iodide, H. P., Merck's	oz	31	Phosphate, 1/8-oz vials, M. C. W.	oz	1 80
Iodide, M. C. W.	lb	3 53	Sulphate, 1/8-oz vials, M. C. W.	oz	1 40
Nitrate, cryst., C. P.	lb	29	Sulphate, 1-oz vials, M. C. W.	oz	1 20
Nitrate, gran., pure, 1-lb cartons	lb	18	Crystals, 1-oz vials	oz	90
Phosphate, pure, recryst., bulk	lb	12	Crystals, in bulk	oz	85
Phosphate, gran., pure, M. C. W.	lb	13	Powdered, in bulk	oz	80
Phosphate, dried, powd.	lb	24	Powdered, 1/8-oz vials	oz	1 05
Salicylate, Merck's	lb	49	Powdered, 1-oz vials	oz	85
Santoninate, Merck's	oz	3 30	STYRAX, liquid	lb	60
Succinate.	oz	44	SUGAR, burnt	lb	25
Sulphate, Glauber Salts	lb	3 5	Grape.	lb	25
Sulphate, Glauber Salts, bbl.	lb	1 1/2	Milk, crystals	lb	30
Sulphate, dried	lb	18-20	Milk, powd., bulk	lb	23
Sulphite, crystals	lb	10	Milk, powd., 1-lb cart.	lb	25
Sulphite, granulated	lb	18	SULFONAL, 1-oz vials	oz	1 35
Sulphite, dry, Merck's	lb	22	SULPHUR, California, ground, 110-lb bags.		2
Tartrate, Merck's	lb	64	Flowers	lb	5
SOLUTIONS, Donovan's	lb	34	Flour, Native.	lb	2 3/4-3
Fowler's	lb	30	Flowers, in bags	lb	2 3/4-3
Goulard's	lb	35	Flowers, Bergenport	lb	3
Nitrate, Iron	lb	50	Iodide, Merck's	oz	38
Mercury, Nitrate	oz	20	Lac., precip.	lb	18
Monse's	lb	50	Roll, bbl.	lb	2 3/4-5
Tin, Chloride	lb	35	Sicily, ground.	lb	5
SOMATOSE, Biscuit, 8-oz boxes	doz	4 00	Strips	lb	15
Somatose, Ferro, 2-oz tins	doz	10 50	Washed	lb	15
Somatose, 2-oz tins	doz	8 25	SUMAC.	lb	10
Somatose, 1 1/4-lb tins	lb	5 25	SYRUP, Ginger, U. S. P.	lb	65
Somatose, 1 1/2-lb tins	lb	5 00	Hydriodic Acid	lb	70
SOZOIODOL, Mercury, Merck's	oz	1 15	Iron Iodide	lb	65
Potassium, Merck's	oz	75	Ipecac	lb	60
Sodium, Merck's	oz	80	Lactucarium	lb	1 00
Zinc, Merck's	oz	1 10	Orange Peel	lb	65
SPARTEINE, Sulphate, Merck's, 1/8s	oz	83	Rhubarb	lb	60
Sulphate, 15-gr. vials	ea	12	Rhubarb, Aromatic	lb	65
SPERMACETI, in cakes	lb	40-45	Rhubarb and Potash	lb	65
SPIRIT, Ammonia	lb	75	Sarsaparilla	lb	65
Ammonia, aromatic	lb	85	Sarsaparilla, comp.	lb	65
Camphor	lb	75	Senna	lb	65
Chloroform, U. S. P.	lb	75	Senega, U. S. P.	lb	65
Lavender	lb	60	Simple	lb	35
Nitre, U. S. P., 1-lb bots	lb	65	Squill	lb	60
Nitre, U. S. P., 4-lb bots	lb	58	Squill, comp.	lb	60
Nutmeg.	lb	75	Stillingia, comp.	lb	60
Pimento.	lb	65	Tolu	lb	60
Rosemary.	lb	65	Wild Cherry	lb	60
STEARIN	lb	20	Yerba Santa comp.	lb	65
STONE, Pumice, select	lb	10	TALCUM, powdered	lb	6-8
Pumice, select, powd.	lb	8-10	Purified	lb	25-30
Rotten	lb	12-15	TAMARINDS, pound bottles	lb	25
Rotten, powd	lb	10	Keg.	ea	4 75
Soap, cut	lb	18	Pulp	lb	50
Soap, powd	lb	8	TANNALBIN.	oz	85
STRONTIUM, Bromide, cryst., M. C. W.	oz	11	TANNIN, 1-lb cartons, incl.	lb	85-90
Carbonate, M. C. W.	lb	27	1-oz cartons, incl.	oz	12
Hypophosphite, M. C. W.	oz	29	TANNIGEN	oz	75
Iodide, 1-oz vial, M. C. W.	oz	30	TANNOFORM, Merck's	oz	22
Lactate, Merck's	oz	16	TANNOPINE	oz	75
Muriate, M. C. W.	lb	32	Veterinary	oz	25
Nitrate, pure, dried, Merck's	lb	59			

TAR, Barbadoes	lb.	25	Myrrh	lb	75
Coal	gal	25	Myrrh and Capsicum.....	lb	75
Pine, bulk	gal	40	Nux Vomica	lb	65
Pine, ½-lb cans.....	doz	75	Opium	lb	1 25
Pine, 1-lb cans.....	doz	90	Opium, camphorated	lb	60
Pine, 2-lb cans.....	doz	1 50	Opium, deodorized	lb	1 30
Pine, gal cans.....	doz	6 00	Orange Peel	lb	65
TARTAR EMETIC, M. C. W.....	lb	54	Quassia	lb	60
TEREBENE, 1-lb bottles.	lb	79	Rhatany	lb	60
Merck's	oz	14	Red Saunders	lb	65
TERPIN HYDRATE, cryst., Merck's.....	oz	10	Rhubarb	lb	65
Pounds, Merck's	lb	60	Rhubarb, Aqueous	lb	60
TERPINOL, Liquid, Merck's.....	oz	47	Rhubarb, Aromatic	lb	70
THEOBROMINE, Alkaloid, Merck's.....	oz	90	Rhubarb, comp.....	lb	65
And Sodium Salicylate, Merck's.....	oz	60	Rhubarb, Sweet	lb	65
THIOL, dry	oz	1 00	Rhubarb and Aloes.....	lb	65
Liquid.	oz	40	Rhubarb and Senna.....	lb	65
THYMOL, 1-oz vials, Merck's.....	oz	25	Senna	lb	65
Pounds	lb	2 90	Senna, comp.....	lb	65
THYROIDIN, Merck's	oz	1 30	Serpentaria	lb	65
TIN, Chloride, Merck's.....	lb	53	Stramonium Leaves	lb	65
Metallic, feathered	lb	1 00	Stramonium Seed	lb	65
Muriate, solution	lb	35	Strophanthus	lb	1 25
Oxide, white, pure, Merck's.....	lb	99	Tolu	lb	75
TINCTURE, Aconite Leaves.....	lb	65	Valerian	lb	65
Aconite Root	lb	75	Valerian, ammoniated	lb	85
Aconite Root, Fleming's.....	lb	90	Veratrum Viride	lb	65
Aloes	lb	65	Warburg's	lb	1 75
Aloes and Myrrh.....	lb	65	TRIKRESOL, S. & G.....	lb	60
Arnica	lb	65	TRIMETHYLAMINE, Merck's	oz	55
Asafoetida	lb	65	TRIONAL	oz	1 50
Belladonna	lb	65	TRIPOLI, bulk	lb	8-12
Benzoin	lb	75	TURPENTINE.	gal	1 00
Benzoin, comp.....	lb	75	In case.	gal	97
Blood Root	lb	65	Chian	oz	45
Buchu	lb	65	Venice	lb	35
Cantharides	lb	75	URANIUM, Acetate, 1-oz vials, Merck's.....	oz	59
Capsicum	lb	65	Chloride, 1-oz vials, Merck's.....	oz	47
Cardamom	lb	75	Nitrate, 1-oz vials, Merck's.....	oz	45
Cardamom, comp.....	lb	75	Sulphate, 1-oz vials, Merck's.....	oz	47
Catechu, comp.....	lb	75	UROTROPIN	oz	60
Cinchona, comp.....	lb	75	Tablets, 20 in box.....	box	25
Cinnamon	lb	65	UNGUENTUM CREDE, ½-oz jars.....	oz	90
Colchicum Root	lb	75	URETHANE, Merck's	oz	54
Colchicum Seed	lb	75	VANILLIN, 1-oz vials.....	oz	75
Columbo	lb	60	VERATRINE, pure, ⅛-oz vials.....	oz	2 40
Conium	lb	65	VERONAL, powd.....	oz	1 60
Cubebs	lb	65	Tablets, 10c.	ea	30
Digitalis	lb	65	Tablets, 100s	ea	2 25
Ergot	lb	75	VERDIGRIS	lb	40
Ergot, ethereal	lb	80	Powdered	lb	45
Galls	lb	60	WATER, Cherry, Laurel.....	pt	50
Gelsemium	lb	75	Chlorine	lb	40
Gentian	lb	60	Distilled.	gal	8
Gentian, comp.....	lb	65	Elder Flower	lb	50
Ginger	lb	65	Orange Flower, triple.....	lb	35
Guaiac	lb	75	Orange Flower	gal	2 00
Guaiac, ammoniated ?.....	lb	75	Orange Flower, Chiris, small.....	doz	2 00
Guaiac, Dewees'	lb	75	Orange Flower, Chiris, large.....	doz	3 75
Hyoscyamus	lb	65	Rose, triple	lb	40
Iodine.	lb	1 40	Rose	gal	2 00
Iodine, colorless.	lb	1 40	Rose, Chiris, 6¾-gal coppers.....	gal	1 75
Iodine, comp.	lb	1 40	Rose, Chiris, small...?	doz	2 00
Iodine, Churchill's.	lb	1 75	Rose, Chiris, large.....	doz	4 00
Ipecac	lb	80	WAX, Bayberry	lb	40
Iron Acetate	lb	65	Bees, yellow, refined.	lb	37-40
Iron Chloride	lb	50	Bees, yellow, oz.	lb	45
Iron Citro-Chloride	lb	65	Bees, white, extra.	lb	60
Jalap	lb	65	Bees, white, No. 1.	lb	55
Kino	lb	75	Bowdlear's, 1-lb cartons.....	doz	4 80
Lobelia	lb	60	Fruit, can, red.....	lb	8
Lobelia, ethereal	lb	65	Fruit, can, white	lb	8
			Japan	lb	18-20

WAX, FLOOR	lb	25-33
Johnson's, 1-lb cartons.....	doz	4 00
Johnson's, ½-lb cartons.....	doz	2 25
Johnson's, ¼-lb cartons.....	doz	1 40
WHITING, Gilders'	lb	3
Spanish	lb	2½
WINE, Antimony	lb	65
Aromatic	lb	65
Colchicum Root	lb	75
Colchicum Seed	lb	65
Ergot	lb	1 25
Ipecac	lb	1 25
WOOD, Brazil, ground.....	lb	10
Camwood	lb	10
Fustic, cut	lb	3½-5
Fustic, ground	lb	6
Guaiac, rasped	lb	10
Hypernic.	lb	8-10
Logwood, chip.	lb	8-10
Logwood, ground.	lb	8-10
Nic.	lb	8-10
Quassia, chip.	lb	15
Quassia, ground.	lb	18
Quassia, powdered.	lb	18
Red Sanders, ground.	lb	12
Red, cut.	lb	10
XANTHOXYLIN, Keith's	oz	1 13
XYLOL	lb	70
ZINC, Acetate, Merck's.....	lb	43
Acetate, 1-lb bottles, M. C. W.....	lb	43
Benzoate, Merck's	oz	24
Benzoate, 1-oz vials, M. C. W.....	oz	24
Carbolate, 1-oz vials, M. C. W.....	oz	24
Carbonate, precipitate, 1-lb cartons.....	lb	25
Chloride, fused, 1-oz vials, Merck's.....	oz	13
Chloride, granulated, Merck's.....	lb	33
Cyanide, 1-oz vials, M. C. W.....	oz	21
Hypophosphite, 1-oz vials, Merck's.....	oz	29
Iodide, 1-oz vials, M. C. W.....	oz	37
Metallic, pure, feathered.....	lb	27
Oxide, English, Hubbuck's.	lb	50
Oxide, wet process, Merck's.....	lb	30
Permanganate, Merck's	oz	52
Phosphate, M. C. W.....	oz	10
Phosphide, Merck's	oz	23

Sulphate, cryst.....	lb	8-10
Sulphate, cryst., chemically pure.....	lb	18
Sulphide, 1-oz vials, M. C. W.....	oz	16
Sulphocarbonate, M. C. W.....	lb	59
Sulphocarbonate, 1-oz vials, M. C. W.....	oz	11
Sulphate, H. P., Merck's.....	lb	15
Sulphate, dried, H. P., Merck's.....	lb	25
Sulphocarbonate, Merck's	oz	11

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65
Apollinaris, 50 qt bots in case.....	8 50	2 25
Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Bartlett, 50 qt. bots. in case.....	8 00	2 25
Bethesda, 50 qt. bots. in case.....	7 50	2 25
Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Bythinia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50
Franz Joseph, 50 bots. in case.....	11 00	3 00
Garrod Spa Lithia, pints.....	6 00	2 00
Garrod Spa, Lithia, ½-gal.....	....	5 00
Hathorn, 48 pt. bots. in case.....	8 00	2 50
Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, ½ gallons.....	9 50	6 50
Londonderry Lithia, 100 pints.....	13 50	1 75
Poland, qts., 50 to case.....	9 00	2 50
Rackoczy Kissengen .....	....	5 00
Red Raven Splits.	5 00	1 35
Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Veronica .....	....	5 50
Vichy Water Celestine.....	10 00	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.....	12 00	4 50
White Rock Splits.	9 90	1 20
White Rock, pints	11 50	1 50
White Rock, quarts.	8 85	2 25

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Pharmacal Jurisprudence.—Harley R. Wiley, LL.B., lectures one hour each week for sixteen weeks to Senior Class.

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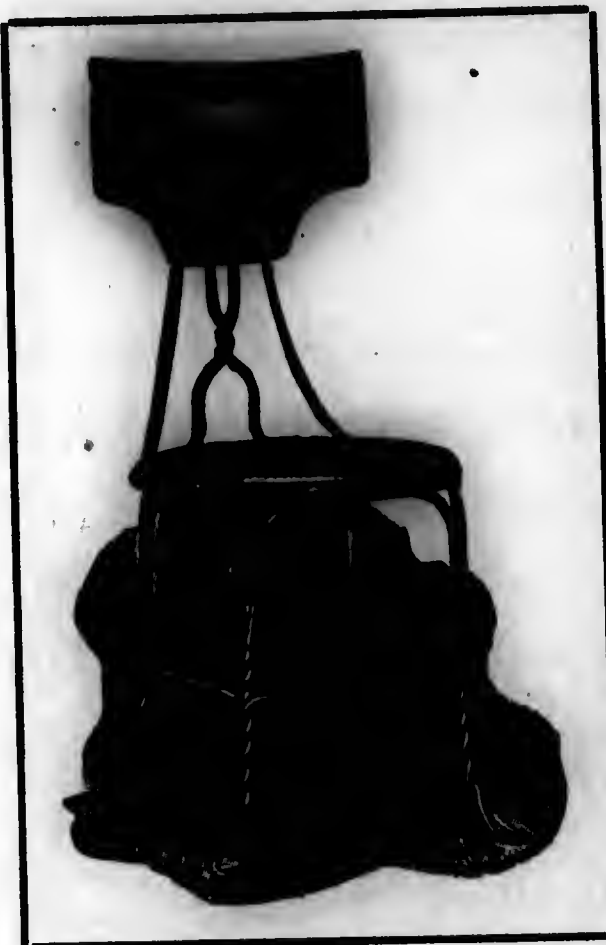
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Professor of Pharmaceutical Chemistry and Toxicology, Dean of

Professor of Materia Medica and Pharmacognosy

B. Sc., England, L. R. C. P., Ireland, Professor of Microscopy and

E. L., Professor of Jurisprudence.

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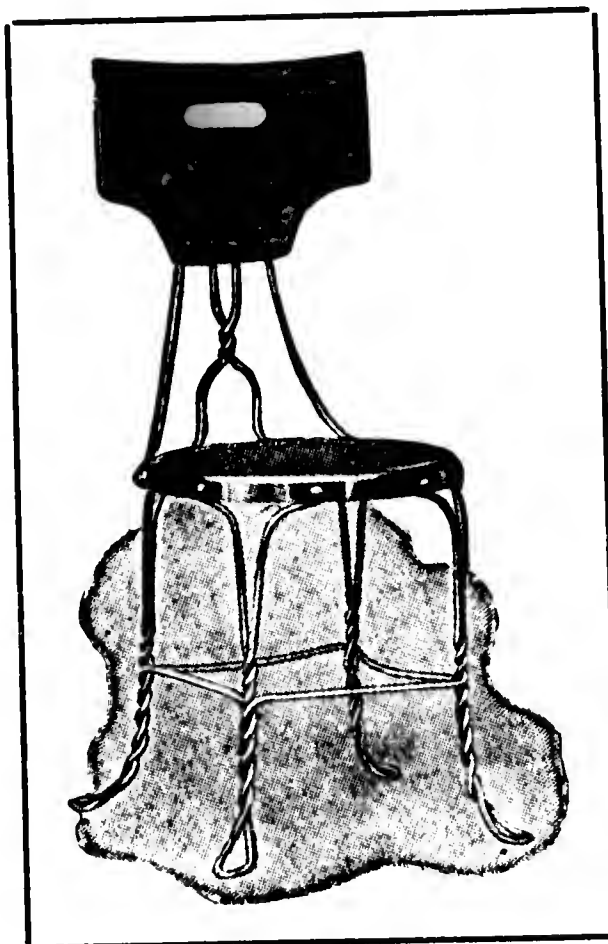
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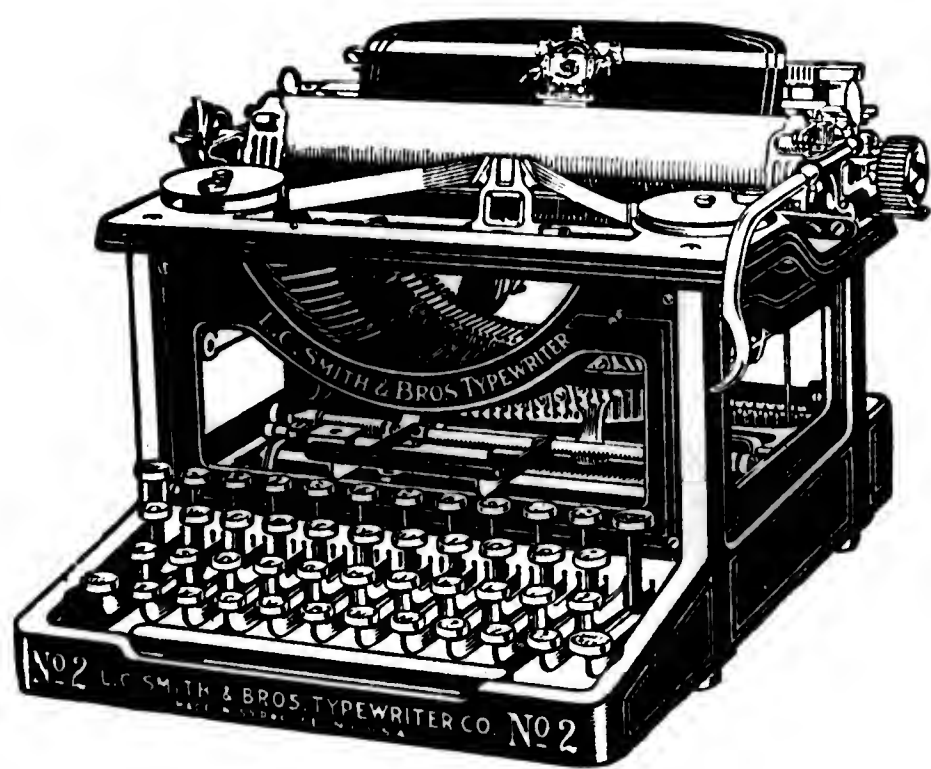
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THE PACIFIC PHARMACIST



VOL. 1

JULY, 1907

No. 3

AN INDEPENDENT JOURNAL DEVOTED
TO SCIENTIFIC PHARMACY AND THE
INTERESTS OF THE DRUG TRADE

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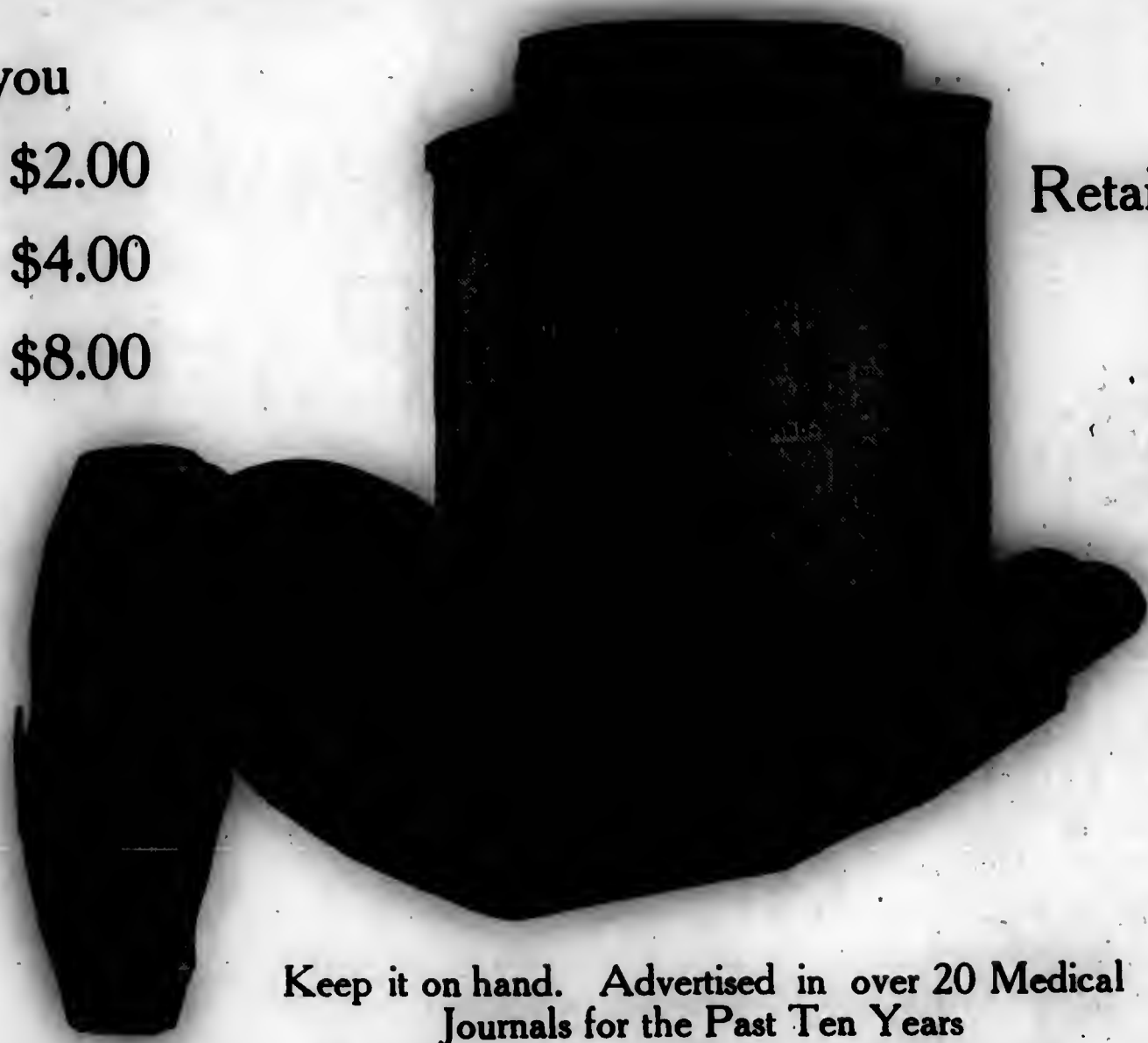
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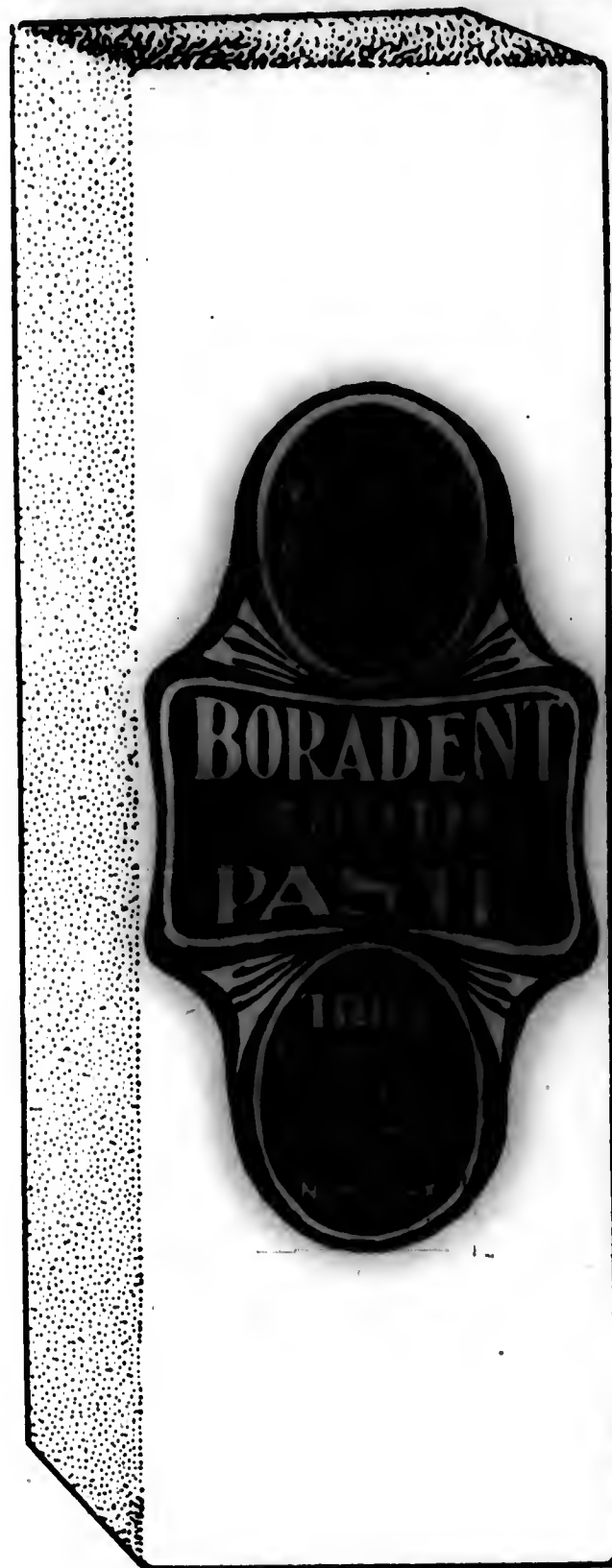
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No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

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Editorial Notes

California Pharmaceutical Society

The California Pharmaceutical Society is alive! Yes, very much alive. Already about 120 members have been enrolled, and nearly the whole of Southern California to be heard from. Evidently the society is expected to fill a long-felt want, for everybody says, as soon as the subject is explained to him, "of course we need such a society. Why did we not have it before? Only a dollar a year! Then I want to join." And forthwith he fills in an application blank.

But when you come to think about it, isn't it strange that California, that

belongs in the front row in matters of pharmaceutical education, that has had a fairly good pharmacy law sixteen years and been loyal to the N. A. R. D. from the first, should have been without a real live Pharmaceutical Association for fifteen years. If the pharmacists of this State have been able to do as well as they have without organization, what might not they have accomplished had they had the stimulus of a live organization, such as they had from 1876 to 1892?

As we think of the good times we had at our summer gatherings at Stockton, San Jose, Oakland, Sacramento and Los Angeles, and the sharp-

ening of our wits that came about from the papers and discussions we heard there, as well as the real pleasure we had in the social features of those occasions, we actually felt sorry for ourselves that we have missed so much that we might have enjoyed.

Now let us all make up our minds that we won't do so any more. We have been shutting ourselves up in our own little sphere, narrowing the horizon of our interest to our own little store (or big one, maybe) interested in our brother druggist on the next corner, only just enough to see that he does not get ahead of us. We have tried selfishness too long; let us try a little "otherishness" as Drummond calls it, and see if life is not just as well worth living, and a good deal sweeter for the change.

Reminiscencing It is common to say that old men like to look back upon the past, but young men look forward to the future. The saying is true so far as it applies to men who are old in spirit, but the man of seventy-five whose heart is young looks forward to the future with all the buoyant expectancy of the man of twenty-five. Indeed, he is often even more sanguine in his expectations, for he sees what has been done, and looks for still larger things to come.

These thoughts are suggested by a short perusal of the history of the California Pharmaceutical Society, by Mr. James G. Steele, the first chapter of which appears in another part of this issue. We remember (now my young reader, don't say "I hate that word; you old fellows are always telling us what you 'remember.' Give us something new!") We remember the feeling of discouragement that prevailed among the druggists of San Francisco when the meeting was held which preceded the first meeting referred to by

Mr. Steele. It was called, not to form a pharmaceutical society or a college, or anything of that sort, but to take steps to **stop cutting**. One or two firms had inaugurated what we would regard as a mild form of aggressive cutting, and the small men—we were all small men then—were alarmed lest this practice should become epidemic and involve the whole city. We met, we talked, we argued, we threatened—but did nothing. On the way home from the meeting three or four crestfallen, almost disheartened young men, who had been trying to bring about peace, sorrowfully admitted their failure, and one of them remarked that they (the druggists) were all Ishmaelites, every man's hand was against his fellow, and nothing could be done until pleasanter relations existed among them. "Let us start a Pharmaceutical Society that will ignore trade antagonisms and seek to elevate pharmacy. In this way we may ultimately establish more friendly relations." This was agreed upon, and the first meeting mentioned by Mr. Steele was the result. The California Pharmaceutical Society was established, and in less than three years the society gave birth to the California College of Pharmacy. And all this came about through somebody advertising a dollar patent medicine for six bits!

Who Was The Man?

In these days when we see an active Pharmaceutical Association in nearly every State in the Union and aggressive cutting in nearly every large city, it may seem strange that any one should ever have thought that the former would put a stop to the latter. Someone may ask "who was the impractical idealist that suggested the formation of a society for culture in place of coercion in trade?" It was either the late Professor John Calvert

or the writer of this article—they were never able to decide which; but as John Calvert is no longer with us to assert his claim, we will concede it to him. In part his ideas were erroneous, in part they were correct. So far as they were erroneous they did no harm. So far as they were correct they did immense good. Cutting continues and probably will continue. The big fish will always try to gobble up the little fish. But while pharmaceutical education cannot prevent this, it can and does aid the financially weak to protect themselves from the financially strong in some departments of their business. Cutting is no worse because of pharmaceutical culture, while its effects are mitigated by the fact that brains always count for something, even in a contest with capital.

Co-operation

But culture is not the only object of a pharmaceutical association. It seeks to establish friendly relations, to promote harmony, to pave the way for co-operation in any measures that give promise of benefit to the body of pharmacists. This is not only an idealist's dream, but a positive necessity under existing economic conditions. It is impossible to see what may transpire from year to year affecting the drug trade, but it is certain that there are always parties anxious to subject us to injurious and vexatious legislation, to hold us up unjustly to public disfavor, or to impose needless restrictions upon our business. We have borne these things in silence because there was no organized body to speak. Druggists of California! Join the State Pharmaceutical Society and be prepared to stand up for your rights if these be assailed, and even take the aggressive if the policy of the last eight years be continued. Don't leave it to the other fellows. Take a hand yourselves.

ANODYNES IN COUGH MIXTURES AND LINIMENTS

Section 8 of the recently enacted poison law reads as follows: "The sale of morphine, codeine, heroin, opium and cocaine, their salts, compounds or preparations is hereby prohibited, unless upon the prescription of a physician, dentist, or veterinary surgeon, licensed to practice in this State, except preparations of opium containing less than two grains of opium to the fluid ounce."

When we were first shown a draft of this section before it had been presented to the Legislature, we stated that we were opposed to it in that form. We considered it too rigid and practically incapable of being carried out. We believe in living up to the law, but are opposed to sumptuous legislation. It is too easy to make and change the laws in this State. Laws are enacted without due consideration and often without a full knowledge of the difficulties attending their execution. For over fifty years we have been selling preparations of various kinds, such as cough mixtures, liniments, etc., which can not now be sold without violating the law, yet in all these years not a single person, so far as we know, has been injured in the slightest degree, or has acquired even the beginning of the drug habit from these sales.

Total Prohibition or Control

This section prohibits the sale in the State of California, without a physician's prescription, of Ayer's Cherry Pectoral, and many other harmless cough syrups, laudanum, compound chloroform liniment, opium liniment, and many other preparations of common use. It also prevents a druggist from putting up any old family liniments and from selling harmless cough

syrups, if they happen to contain ever so small a quantity of opium, morphine, or their preparations. There ought to be a reasonable latitude in a law of this kind. We are as strongly opposed as anybody to the sale of medicines that contain narcotics or anodynes in sufficient quantity to lead, under any circumstances, to the formation of the drug habit, but most of these expectorant cough syrups will produce vomiting when taken in doses sufficient to narcotize. There is, therefore, no danger in such cases of inducing the drug habit, even if the medicine be taken to excess.

Where, then, is the line to be drawn? How can these preparations be sold without danger of creating a habit? We suggest that some limitation be put, either upon the proportion of any of these habit-forming drugs that may be put into any preparation or compound, or upon the total amount that may be contained in one package. This method of dealing with the difficulty is recognized in the law, for the last part of this section specially excepts "preparations of opium containing less than two grains of opium to the fluid ounce." We all know that this exception was made so as not to prevent the sale of paregoric. Now it has been our experience that the very preparation which the law permits the druggist to sell without the physician's prescription has led to the drug forming habit, and we have on several occasions refused to sell paregoric for that very reason. It does not seem that it should be necessary to entirely prohibit the sale of these remedies because once in a million times a misuse is made of one of them. If this practice were carried out universally, no ship chandler would be allowed to sell rope, lest some one should hang himself, and no gunsmith could sell firearms, lest

somebody be shot. There must be a middle course somewhere. When our health boards found that some persons were selling milk that contained too many pathogenic germs, they did not prohibit the sale of milk, but made regulations limiting the number of germs to the cubic centimeter that might be present in milk that was sold. If our legislators and those who are so anxious to hamper the druggist in every detail of his business, would make an earnest effort to protect the health and lives of the people without unnecessarily abridging their liberties, a law could easily be enacted that would accomplish this object. As the matter stands now, the law will, almost of necessity, be so frequently violated in this particular as to be in danger of being brought into contempt. We shall be sorry if this result should come, but, to avoid such a condition in future, let us see that only reasonable laws are enacted, and then see that they are enforced.

THE LATEST WONDERS

For over a hundred years we have been ridiculing the alchemists because of their deluded notion that they could transmute what they called the baser metals into gold, and because they also thought that it was possible to find the elixir of life, the use of which would prolong life indefinitely; and now comes Sir William Ramsay, a very respectable authority, who claims that he can produce copper out of a mixture of sodium, lithium, and potassium by the aid of those mysterious little agents that emanate from radium.

Artificial Copper

There have always been philosophers who have leaned to the idea that there was only one kind of matter, and now men of high standing as

scientists are adding the weight of their great intellects to this idea. We used to think that we knew something, and were happy in the impression that when we had got down to atoms we had found the beginning of things, but now the poor atom has had its nose put out of joint by the birth of the ion. We understand that the Boston girl graduate who "loved a molecule and adored an atom," has already transferred her affections to the ion, "because, you know," she says, "it tells us so many secrets."

These new wonders of physico-chemistry make us touch our hats to the alchemists who, in seeking for the philosophers' stone and the elixir of life, found chemistry. But these wonders in the world of inanimate matter are equalled in the realm of vital agencies, if we are to believe what is told us by the bacteriologists. Pasteur began by opening his Pandora box, and soon there was revealed to us a vista of possibilities in micro-organisms. He was quickly joined by a host of observers and experimenters, until we are told that the festive

Microbes

Everywhere

microbes disport themselves in countless numbers in the food we eat, the water we drink, and the air we breathe. They are absolutely omnipresent: we cannot get away from them. A few of these little sprites are harmless enough, but when they are present in large numbers they are highly injurious, and the wonder is, as we read what the microscopists say, that one of us is left alive to tell the tale. We often hear people descant upon the power of numbers to effect certain changes, but in the case of these germs we have an extreme illustration of what the term means. Milk always contains more or less bacteria. If it contains more than thirty-five thou-

sand to the cubic centimeter it is condemned, but milk that contains only thirty-four thousand nine hundred and ninety-nine in a cubic centimeter may be drunk and nobody be hurt. That number is not sufficient to produce disease in a healthy person. What is there in the human alimentary canal to keep these creatures from doing harm? Probably the opsonic theory may help to explain.

Opsonins

This brings us to the latest wonder. Some physicians or biologists claim to have discovered germs in the blood, so that after their action disease germs are digested by the white blood corpuscles and, being thus destroyed of their power to create disease, the sickness is killed. These opsonins are subject to culture like bacteria, and are injected into the body. All that the doctor has to do now is to find the right kind of an opsonin, make a culture of it, and inject it into the patient, and let these microbes and the typhoid fever microbes fight it out, while he simply sits by and bides his time to make another injection. This does away with all need of drugs and medicines, and gives happy promise of doing away with ninety-nine per cent of the doctors.

In the light of these discoveries we cannot any longer afford to laugh at the alchemists. We are surely in a way to discover the elixir of life. The microbes that produce many diseases are already known, and soon we will have the various opsonins with which to combat them. Other microbes will doubtless be found and disposed of in the same way. There will still remain, however, one more microbe to be discovered, that is the "old age" bacillus. As soon as this has been found, somebody will doubtless find the opsonin

that will prepare him for digestion by the white blood corpuscles, who will forthwith eat him up, and "death, the last enemy, shall be destroyed."

As we think of these recent discoveries and of what the future may open up to us, we almost wish, either that we could live forever, or that we had not been born until A. D. 2000. We would even welcome reincarnation, that we might see with our eyes, and hear with our ears, the wonderful things that will be revealed to our posterity. In comparison with what will be known a hundred years hence concerning the things which are now mysteries, our present knowledge is so limited that we feel inclined to cry out in humiliation, "Ignoramus! ignoramus! ignoramus!"

CALIFORNIA PHARMACEUTICAL SOCIETY

The California Pharmaceutical Society is getting ready to do some good work in the near future. The trustees' meeting held in May was attended by the entire board and was a very enthusiastic meeting from beginning to end. Besides discussing subjects of importance, a committee was appointed to devise means for soliciting membership into the society. The City of San Francisco was mapped off into sections, and a representative in each section has been asked to personally interview his neighbor druggists with the view of getting new members.

Secretary F. W. Nish was instructed to send application blanks to one or more members in every city in the State and ask them to serve as a local committee in securing members from among the druggists of their respective cities.

We know that every druggist is "very busy," but let each of us do our

mite and in the end the aggregate of the results will surprise the most sanguine.

Meeting of the Board of Trustees

The Board of Trustees met on June 27th, and among other business, elected the following persons to membership:

J. H. Guedet, 1501 Waller St.; D. D. Hunt, 1800 Haight St.; D. H. Wulzen, Seventeenth and Castro Sts., San Francisco. H. A. Glines, Seventh and Center Sts.; O. J. Levy, 460 Seventh St.; Albert Forneris, 102 Telegraph Ave.; Warren P. Wheeler, 460 Seventh St.; Paul N. Hanby, 1766 Seventh St., Oakland. J. P. Bowman, Crescent City, Cal. Frederick Webley, M. D., Santa Rosa, Cal. James G. Steele, 130 Laguna St., San Francisco.

The Board unanimously voted to make the **Pacific Pharmacist** the official organ of the Society.

The question of holding a semi-annual meeting this year was discussed, and after a full consideration it was decided to hold only the annual meeting in November in San Francisco. In the meantime, the committees appointed to secure new members will apply themselves to this duty, and it is expected that the fiscal year will not close until fully three hundred members have been secured. Mr. I. Tobriner reported that in visiting his brother druggists in Oakland, he had not met with one refusal, and he expects to have practically the entire retail drug trade of his city enrolled before November. More than half of them are already members. In fact, when druggists are properly approached and the evident need of such an organization shown, scarcely any pharmacist of good standing wants to be outside of the organization.

Decisions Under the Pure Food and Drugs Law

The Federal Pure Food and Drugs Law provides that where there is doubt as to the interpretation to be put upon any provision of the law, it may be referred to the Secretary of Agriculture whose decisions, while they do not become a part of the law, yet express the attitude of the department in relation thereto. See F. I. D. No. 44. And as these decisions are given after consultation with the Attorney-General, it is fair to assume that they will be the law until a contrary decision has been obtained in the Supreme Court of the United States.

We propose to publish such of these decisions (F. I. D.—Food Inspection Decisions) as relate to the drug business, and print in this issue numbers 40, 41, 43, 44 and 46. In some cases, where the decision relates partly to foods and partly to drugs, we omit such portions as have no interest to the drug trade. F. I. D. 1 to 39 relate to foods only, and hence the first we publish is No. 40.

Official Antidotes

We publish in another column the "Official Antidotes" adopted by the California State Board of Pharmacy, as required by the new Pharmacy Law. We suggest that proprietors of stores should send to the State Board of Pharmacy, No. 925 Golden Gate Avenue, San Francisco, for two copies of this document, and cut them up so as to paste them in a convenient place where they can be seen in a moment. If wanted at all, the information here given will be needed in a hurry. So have it handy.

In a future issue we will reprint the "Circular of Information" issued by the State Board. We are frequently asked questions which are answered in this circular.

TAKE TIME

If you are not perfectly familiar with the way vaccine and antitoxins are made and of their action in the prevention and cure of smallpox, diphtheria, anthrax, etc., take time to read the very lucid and interesting account which we publish in this issue of the methods pursued in the Cutter Analytic laboratory at Berkeley. It is rather a long story, but it tells not only how these wonder-working agents are made, but also how they act so as to prevent or cure with practically no danger to the patient. It will pay you well to read it.

SAN FRANCISCO GOING RIGHT AHEAD REGARDLESS OF KNOCKERS

During the month of June the bank clearings for San Francisco were \$177,307,227.96, an increase of \$28,394,432.02 over the bank clearings for the month of June, 1905, and \$45,159,796.50 over the bank clearings of June, 1906.

Permits for buildings amounting to \$3,916,450 were issued during the month of June.

DONATION

The library of the California College of Pharmacy has recently received the following publications from the Wellcome Chemical Research Laboratories, London, of which Dr. Frederick B. Power, formerly of the University of Wisconsin, has for many years been director:

1. Chemical and Physiological Examination of the Fruit of Chailletia Toxicaria, Don, by F. B. Power, Ph. D., and Frank Tutin.
2. Chemical Examination of Eriodictyon, by the same authors.

3. The Botanical Characters of Some California Species of *Grindelia*, by P. E. F. Perrédès, B. Sc., F. L. S.

4. The relation between Natural and Synthetical Glycerylphosphoric Acids, (Part ii), by F. Tutin and A. C. O. Harn.

5. The Constitution of Umbellulone (Part ii), by F. Tutin.

6. The Constitution of Chaulmoogric and Hydnocarpic Acids, by M. Barrowcliff, A. I. C., and F. B. Power.

7. The Reduction of Hydroxylaminodihydroumbelluloneoxime, by F. Tutin.

We think it's about time that thing was reduced. Now our good friend Dr. Power is one of the kindest gentlemen that nature ever made; so when he throws at us, or lets those collaborators of his do it, words of fifteen and sixteen syllables that take from thirty to forty letters to spell, we know he means no harm, but we cry out in alarm just the same. We never get into a controversy with anacondas and sea-serpents. Frank Tutin, the author, tells us that "when umbellulone is treated with an excess of hydroxylamine in alcoholic solution

HYDROXYLAMINODIHYDRO-UMBELLULONEOXIME

is formed." We don't doubt your word a bit, Mr. Tutin. It's too big. We are glad you have been able to reduce it. Keep on reducing, and when you have got it down to three or four syllables, let us know.

OPSONINS

The Opsonic Theory is just now the great subject of comment among physicians everywhere. It seems that there are "opsonins" in the blood which, acting as sauces or relishes, prepare disease germs for digestion by the leucocytes or white blood corpuscles, thus destroying the capacity of

these germs to provoke disease. It follows that if the amount of opsonins be increased, the resistance of the body to disease will be enhanced in like measure. This increase of opsonic power has been effected by indirection; sterilized cultures of the germs themselves (called "bacterial vaccines") are injected in small amounts at first, and then in larger quantities, until the body, following the well-known physiological law of supply and demand, develops an increasing resistance. In other words, the supply of opsonins is augmented, with the result that a much larger quantity of disease germs in the blood can be digested, consumed, and put out of harm's way. This, in a word, is an outline of the opsonic treatment, regarding which much is expected by the medical profession in the cure of various diseases.

THE BITER BITTEN.

Two physicians who conduct a drug store in a West Virginia town recently informed the Board of Pharmacy that one of their competitors was conducting a store without a license. An immediate investigation followed, and the charge was found to be correct and the shopkeeper was arrested. Unfortunately for the complaining physicians the investigation did not end with the one store, but extended to all others of the town. As a result the two informers were also arrested on a charge similar to the one they had preferred against their neighbor, they having failed to qualify as pharmacists according to the law before becoming too ardent in suppressing illegal proceedings.

While the officials were in the town they also called upon another physician who was apprehended on a charge of failing to attach his full name to his prescriptions as required by law.

STAND BY THE N. A. R. D.

By W. B. Cheatham.

In the N. A. R. D. you have the greatest of retail organizations, and through it you can work for betterment to the greatest advantage; but remember, that the mighty mogul engine cannot draw a train, indeed it cannot turn a wheel without fuel and water and some oil on the bearings; neither can the N. A. R. D. turn its wheels and draw the load **put upon** it by your needs unless you **supply the financial fuel, water and oil.**

There never is a wind that blows through an orchard of fruit that fails to separate some rotten specimens from the limb upon which they hung as useless burdens, and assisted to mellow and perfect the fruit remaining; and it can be expected that a few specimens of decayed fruit that have hung for a time on the N. A. R. D. tree will find their way to the ground because one court out of twenty odd has rendered a decision **seemingly** adverse to our interests. But to the glory and good of the retail drug trade, let it be known that the profession embraces a sufficient number of men who have the stamina and determination to stand up for its rights, and they are the people who do not have to be conscripted to get them to go to the front and battle under General N. A. R. D., the only general the trade ever had who would watch the field with care and never retreat except to strengthen his position and protect his men, and a field-glass is not needed to enable one who can think, to see that, despite all the reverses experienced during the past eight years the N. A. R. D. army has advanced to a position from which it cannot be dislodged, with the ranks practically unbroken; and the appeal it makes is, **let every man do his duty.** If you have not paid your dues, you are in debt. Cancel the debt, so the association may have funds to work with. Do not wait for it to spend the amount of the dues in sending some one to collect them. Treat the matter as you would any other business proposition. It's your association. It is your betterment it is battling for.

A receipt will be promptly sent you on receipt of your remittance to the office, 98 Sanchez Street, San Francisco, or to Chicago.

SALES OF WOOD ALCOHOL

We have been asked to state under what conditions wood alcohol may be sold. Reading the law carefully, we find many conditions, which are as follows:

- 1st. Sales need not be registered.
- 2d. The purchaser must not be under 18 years of age.
- 3d. He must be known to be aware of its poisonous character.
- 4th. It must satisfactorily appear that it is to be used for a legitimate purpose.
- 5th. It must be labeled "Wood Alcohol."
- 6th. The label must either be in red ink on white paper, or white on red paper. It must bear the word "**Poison,**" the vignette representing the skull and cross bones, and the name and address of the seller. The label must also bear the following antidote: "Give warm water and salt (two teaspoonfuls to a tumbler), immediately; repeat at short intervals. Stimulate respiratory movement. Give strong coffee."

We wonder how many paint stores live up to all of these requirements. We suggest that pharmacists observe them closely, and if they do, and other merchants do not, it will result in the business falling into the hands of those who observe the law.

50,000 Pounds of Cyanide Sold by One Druggist.

Mr. Jacob Jessen, of Ontario, this State, has secured the contract for furnishing the San Bernardino County Horticultural Commission with 50,000 pounds of cyanide of potassium at $24\frac{3}{4}$ cents a pound, and 1,600 pounds of sulphuric acid at $2\frac{1}{4}$ cents a pound. That's a big lot of poison, for sure, for the efficient, active, and energetic Commission proposes, not only to slay every kind and sort of pernicious scale bug in the county, but proposes to slay them as fast as they dare to cross the west border line of the county.

MANUFACTURE OF ANTITOXINS AND VACCINE.

**As Conducted in the Cutter Analytical Laboratory
at Berkeley, Cal.**

Antitoxins are practically new agents for the cure of germ diseases. They were unknown before 1890 when Behring, a German, and Kitasato, a Japanese bacteriologist, worked out their production. Since then several German and French bacteriologists enlarged upon the work of these pioneers, and about five years later, after an immense amount of laboratory experimentation, a few antitoxins were perfected, the most important of which is diphtheria antitoxin. And for the past few years American and European laboratories, following the methods of these workers, have been able to produce diphtheria antitoxin in its highest potency. The method of production is simple, yet requires the most careful attention to details.

To make diphtheria antitoxin it is first necessary to secure a pure culture of the diphtheria bacilli. Such culture may be made from the throat of a person sick with diphtheria or may be obtained from some American or foreign laboratory making antitoxin. The next step is to produce diphtheria toxin, which is performed by growing the germ on the surface of previously prepared beef tea or bouillon in suitable flasks. This bouillon is quite like that made at home or served in restaurants. A small quantity of the germs is deposited on the surface of the bouillon and then the flasks are put in an incubator and kept uniformly at the temperature of the human body. In a day or two the entire surface is covered by the multiplied growth of the germs, and by the end of a week it has become a thick, heavy, white, tenacious membrane-like growth. This surface growth is exactly like the white patches or membrane in the throat of a person sick with diphtheria. Or, in other words, we have a case of true diphtheria in each flask. The germs while growing on the surface of the bouillon take it in as food and secrete products that are poisonous. The bouillon becomes more or less saturated with these poisons, and it then constitutes the so-called diphtheria toxin. An exactly similar process takes place in the throat of a person sick with diphtheria. The germ multiplies, produces

whitish patches or membrane on the surfaces of the throat, produces a toxin or poison which is absorbed and poisons the system, giving rise to all the symptoms of the disease. The laboratory toxin after having been made is used to inject into horses to produce the antitoxin. The production of antitoxin is a slow and laborious one, and requires from three to four months' time.

The method is to inject under the skin of horses increasing quantities of toxin, beginning with a small quantity, about five or ten drops. After two or three days a larger quantity is injected, about twenty drops, then with periods of a few days between each injection increasing quantities are given until at the end of three or four months as much as a pint of toxin can be injected at a time. The first injections cause some disturbance or sickness in the horse, but the later ones develop a tolerance and the horse is able to stand the larger quantities without inconvenience. The horse is then said to be "immunized." For about three or four months such a horse will produce potent serum; then he ceases to produce and must be discarded. The toxin used for the injections is so poisonous that one drop would kill twenty-five guinea pigs, each weighing half a pound. A horse (fig. 1) injected with a pint of such toxin receives enough poison to kill 250,000 guinea pigs, or this same amount would kill about 1000 men. This tolerance or immunity, as it is called, is due to the fact that the toxin stimulates certain cells or groups of cells or organs of the horse to produce some substance which renders inert or neutralizes the poison or toxin, thus protecting the life of the horse. This substance is antitoxin. (The name implies its action, anti—against, toxin—poison.) This substance or antitoxin is produced in greater and greater amount as the injections of the toxin are increased, and at the end of three or four months when the horse has gained a tolerance for the enormously large quantities of toxin, it is found in great abundance in the horse's blood. To make this plainer a comparison might be made with that tolerance which obtains in the person addicted to drug poi-

sons. The opium, morphine, or cocaine fiend, or the boy smoking his first cigar, is made very sick or stupefied when the habit is first started, but after several indulgences is able to withstand the poison without much inconvenience, and in time is able to indulge freely. It is probable that the same process is at work in such cases as in the horse when diphtheria toxin is injected. Nature comes to the rescue to save life by producing some protective substance that neutralizes the poison, and so the dope-fiend is able to tolerate great poisonous doses.

To obtain the antitoxin from an immunized horse it is bled about a week after the last injection of toxin. The bleeding of the horse is a very simple process, causing but little pain and is not often objected to by the animal. The operation is performed by inserting a trocar, or sharp pointed rod having a canula or tube around it, through the skin and muscles of the neck into the jugular vein. When the vein has been entered the rod is withdrawn, leaving the tube in the vein. A sterile rubber tube is quickly connected, which is in connection with a glass tube passing through a cotton plug in the mouth of a blood tube or flask. The blood then flows freely from the vein into the receiving flask or blood tube. Usually about a dozen (fig. 2) blood tubes are filled from the horse at a single bleeding. This seemingly large amount of blood does not affect the horse in any way, but instead the horse appears to be livelier and more active than before. The blood tubes are placed in storage and after three or four days it will be found that the blood has clotted and separated into two portions. The clot containing the red and white corpuscles has settled toward the bottom of the tube leaving the clear yellow serum or fluid in the upper part. This clear yellow portion is the antitoxin. From this, it is readily understood that antitoxin is the fluid portion of horses' blood containing the protective or neutralizing substance produced in it by the horse during the time of treatment with toxin. The antitoxin or serum is siphoned from the blood tube into a storage bottle, four-tenths of one per cent of trikresol is added as a preservative, and it is then filtered.

All the operations in antitoxin production are under the most rigid aseptic conditions to prevent any accidental contamination. All instruments, bottles, containers, etc., have been previously sterilized, and the

antitoxin from the horse to the patient comes in contact with only sterile surfaces and germ-free filtered air. And lastly it is tested by the usual bacteriologic methods to insure its freedom from any contamination during process of production. It is then measured into the syringe containers and is ready for the market.

The strength of antitoxin is estimated by the number of units it may contain. A unit is a variable quantity and may be as much as one-tenth or as little as one-fiftieth of a drop. It is that quantity which will save the life of a half-pound guinea pig (fig. 3) when injected with 100 fatal doses of toxin. Or it is the amount that will save 100 guinea pigs against one fatal dose of toxin. Then one drop of a high grade antitoxin would save from death 3000 or more guinea pigs each receiving one fatal dose of toxin.

At the present time the antitoxin unit is the same for all antitoxins whether produced in American or European laboratories. All foreign antitoxins are compared or standardized by the German or Ehrlich unit, made at Frankfort, Germany, while the American antitoxins are standardized by the Government unit, made at the Hygienic Laboratory of the Public Health and Marine Hospital Service at Washington. This standard unit compares exactly with the German unit. It is sent by the government to each of the American laboratories every two months, and each laboratory standardizes or estimates the strength of the antitoxin they produce by it (fig. 5). From this it is seen that all antitoxins are comparable and definite in strength; there can be no sophistication or dishonest product. Not only does the government require a standard or definite strength of all antitoxins, but it also requires that they be made under the most rigid hygienic conditions and surroundings. Each American laboratory is inspected by a competent inspector who demands that every minute detail shall meet with the government requirements. Also that the laboratory itself shall be beyond question as to its surroundings and equipment. Furthermore, the products of each laboratory are purchased in open market by a government agent, these are sent to Washington and then tested for their strength or value and other required qualifications, and if found below the standard in any way the license of such laboratory is recalled and it must cease business. Antitoxin and other biologic products are the

only remedial agents that are under strict government control, and for this reason they merit the confidence of the physician, the pharmacist, and public. Antitoxins represent the highest achievement in scientific medicine and are the result of years of labor and the delving into the secrets of nature, and applying these secrets to the cure of disease. So in the use of diphtheria antitoxin it is but the application of a substance that nature has used for the cure of diphtheria and has held in secret for remote ages or since the first case of this disease. Or in other words, the injecting of antitoxin in diphtheria is but the borrowing of a protective substance from the horse, which nature has produced, and handing it over to the person sick with diphtheria to protect his life. The antitoxin is produced in the horse by nature to protect its life against the increasing injections of diphtheria toxin (immunizing process) and when such antitoxin is injected into the body of a person sick with diphtheria it does for such person the same duty, that is, it protects life by neutralizing the increasing amount of toxin produced by the diphtheria germ growing in the throat. Such increasing amounts of toxin are absorbed by the body of the patient and poison it so much that death results unless neutralized and rendered inert. In every case of diphtheria the body of the patient is continually producing its own antitoxin which is nature's effort to cure the disease, and if the amount of antitoxin so produced is sufficient to neutralize all the toxin produced by the diphtheria germs growing in the throat, such person gets well. If it is deficient the patient dies. But science comes to the rescue and borrows the deficient amount from the horse and gives it to the patient that he may live. Wonderful are the ways of nature to care for her own, and more wonderful are her secrets when science learns to apply them. There are at the present time many erroneous beliefs and much prejudice concerning the use of diphtheria antitoxin. It is believed by many that it causes serious complications or after effects, that it causes rheumatism, that it brings on paralysis or heart failure, makes children cross-eyed, produces scrofula, etc. None of these beliefs are founded on facts or substantiated by statistics. There is a prejudice that antitoxin is harmful because it is a poison. It isn't such, for it is the same substance as the liquid portion of all blood whether of ani-

mals or man. Antitoxin is placed on the market by nearly all the American laboratories in four different size packages, containing respectively 1000, 2000, 3000, and 4000 units. The smaller two are called the immunizing size, and the 3000 and 4000 units are the curative size. The immunizing size is understood to be the quantity necessary to protect a person who has been exposed to a case of diphtheria, that is, if a case of diphtheria develops in a family of several persons they have all been exposed to the disease, and by being injected with 1000 or 2000 units of antitoxin they are protected from taking the disease. This protection lasts from two to six weeks, which is sufficient time for the case that has developed in the home to be cured and methods taken to disinfect and eliminate the disease. This prophylactic use of the antitoxin, as it is termed, then allows members of the family to attend the patient without fear of taking the disease, and also eliminates the stringent quarantine of the house as was practiced some years ago. The curative dose of 3000 or 4000 units is used in true cases of diphtheria. A young child may be cured by 3000 units, if the antitoxin is injected very early in the disease; for older patients the 4000 should be used. Each individual case is treated according to the severity of the disease, and the attending physician uses his judgment from experience as to the necessary amount that should be used for a cure. All cases are not alike as some are more resistant to the effect of the antitoxin than others. Age is an important factor and older persons require more than young children. Also the habits of the person, his or her condition of health previous to the attack, have an influence on the outcome. No two cases can be compared. A robust man may require more than a frail woman, but sometimes the reverse is the case. The important point in antitoxin treatment is that the patient receive enough of it, enough to neutralize all of the toxin in the system and enough more to take care of the toxin that is subsequently formed and absorbed. There is no such thing as over-treatment with antitoxin, no over-dose, as it is harmless and there are no serious after effects. It should be used until the symptoms abate to a point of absolute safety, till the false membranes and patches in the throat disappear. To more clearly bring out the above statements and to illustrate what antitoxin will do, its

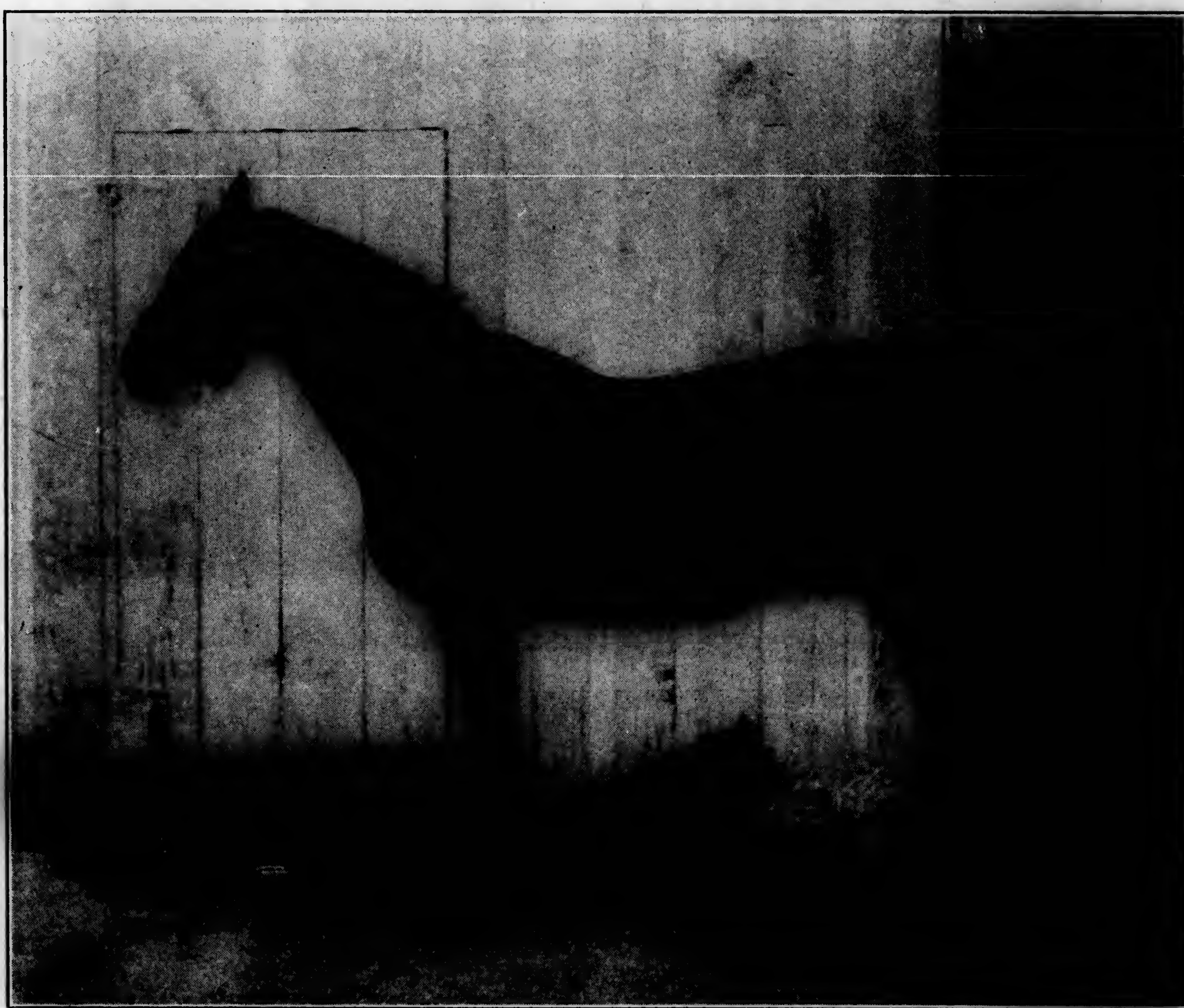


Fig. 1.

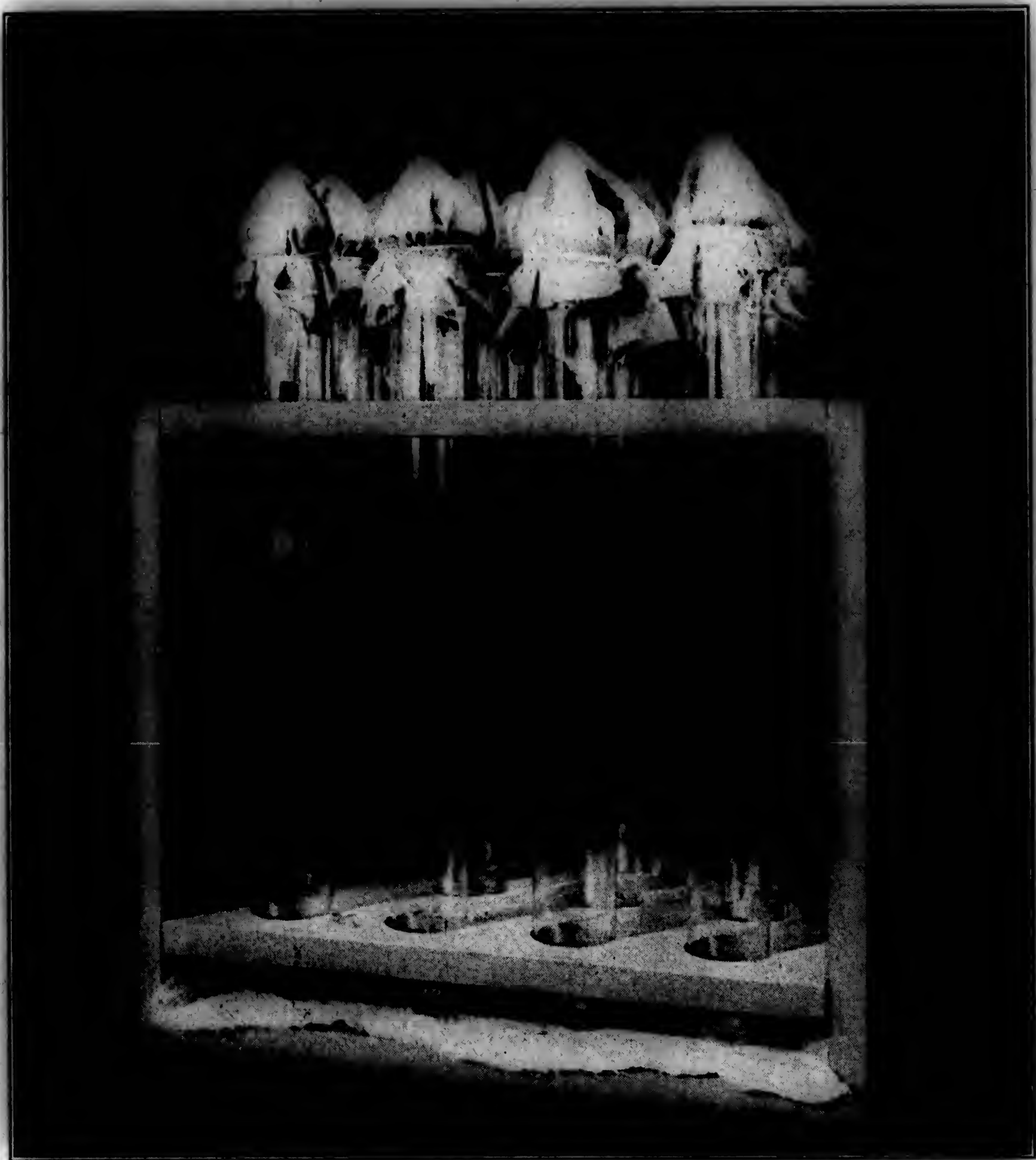


Fig. 2.



Fig. 3.



Fig. 4.

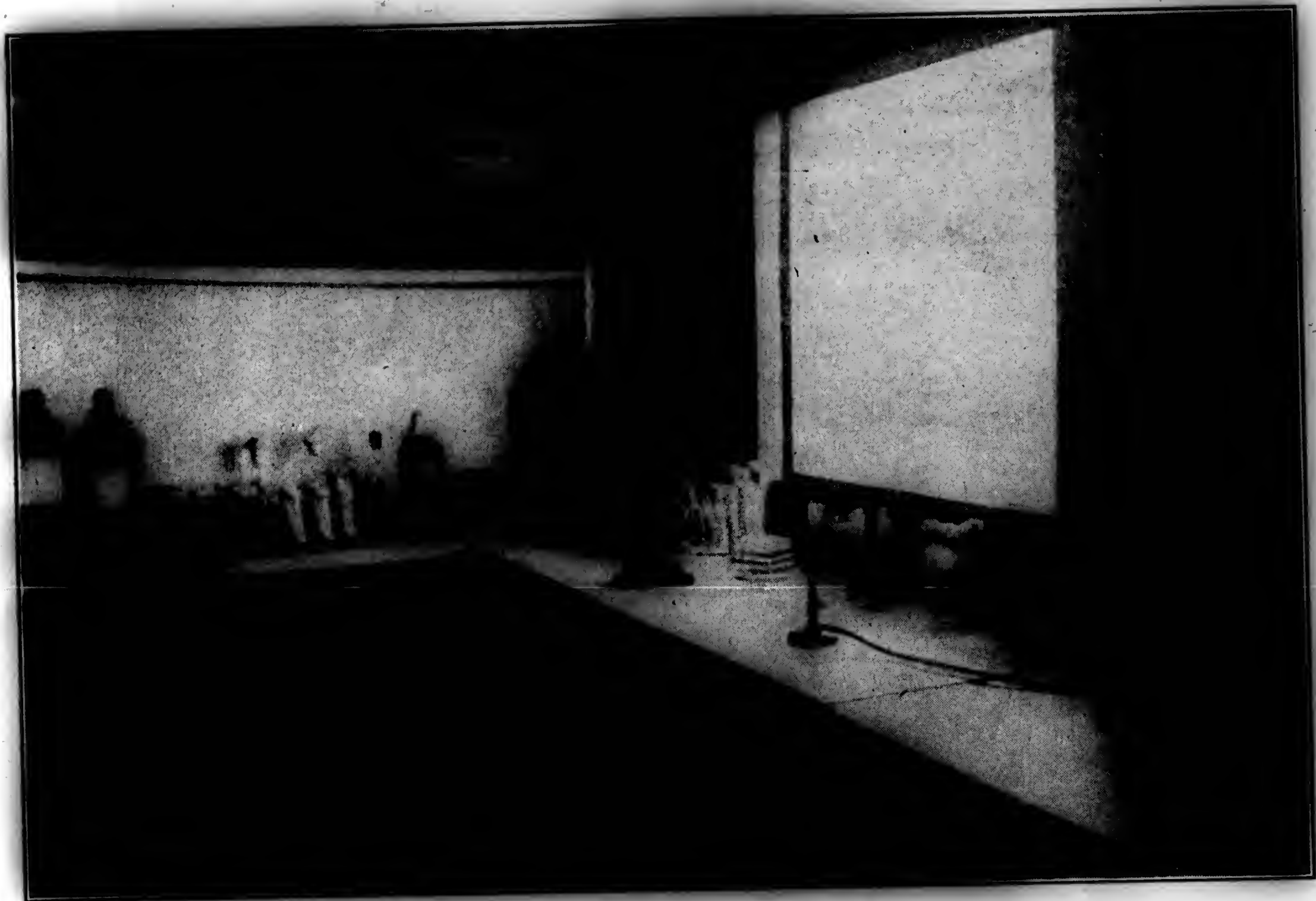


Fig. 5.



Grounds and Buildings of the Cutter Laboratory.

harmlessness, etc., a case may be cited that was treated in the Alameda County Hospital, the details of which were given by the house physician. A young girl in the last stages of diphtheria was brought to the hospital. She was unconscious and gave all the indications of a fatal ending in a short time. The physicians said she could not live more than twelve hours, but believing there was hope as long as there was life, and also to learn what antitoxin would do in such a severe case, they began injecting diphtheria antitoxin, using for the first dose about 32,000 units. In six or eight hours later, upon noting a slight improvement, a second injection was given, using this time about 24,000 units. A third injection of about the same amount was made some hours later, and during the next day more was given, and by the end of 48 hours the girl was on the road to recovery. On the third day she talked and joked with the nurse and asked for something to eat. In a week or more she was a well girl and was taken home. The total amount of antitoxin used in this case was nearly 160,000 units, or forty curative doses. There were no after effects or harm done by the use of this very great and unusual amount of antitoxin.

A case was reported in one of the Eastern medical journals some time ago that exceeds this in the amount of antitoxin used. In this one the disease was rather resistant to the antitoxin as it lasted over a period of two weeks before it was finally cured. Antitoxin was injected two or three times every 24 hours and a total of about 285,000 units were used. From what has been said it will be seen that in every case of diphtheria it is only a question of the use of the necessary amount of antitoxin.

Of course, there are numerous cases where antitoxin is used and a cure is not effected, but they are the exception. In some of them it may be that the antitoxin was used too late in the disease or perhaps not enough of it used.

The laboratory produces other biologic products besides antitoxin, among these are antistreptococcic serum, vaccine virus, anthrax vaccine, blackleg vaccine, tuberculin, and mallein. The latter four are for veterinary use.

A few words might be said about vaccine virus, as it is a well known biologic product, but one against which there is much prejudice and misunderstanding. The pre-

judice is due mostly to facts brought to light in times past when its production and application was less scientific than at present. All vaccine virus at the present time is made under the most rigid aseptic conditions and by approved scientific methods. It is constantly under government inspection and must meet all the requirements for purity and freedom from any objectionable feature. Young calves are used, only, in its production at the present time. These animals have been selected for the reason of their freedom from any disease, and for the ease in handling them.

A calf from five to ten months old is most suitable one. The animal is carefully selected and when brought to the vaccine department is thoroughly inspected and then it is further tested for any disease of body or skin. This testing requires several days. If found perfectly sound and healthy it is thoroughly washed from head to heels with hot water, soap, and brush, that is, it is given a thorough shampoo. It is then strapped on to the operating table and that portion of its body in the region of the udder and inner hind legs is again shampooed, then carefully shaved, leaving a smooth, bare surface. This surface is then thoroughly washed with soap and boiled water and scrubbed with a brush. It is rinsed off first with boiled water, then with cold sterile water, and dried with a sterile towel. The surface thus obtained is as sterile as it can be made. This surface is then vaccinated with glycerinated vaccine. This is done by making small, short needle scratches or linear incisions over the entire surface and then rubbing the vaccine into them. This operation is done quickly and with little or no pain to the animal. The animal is then placed in the incubating room for six or seven days and carefully attended. At the end of this time the calf is again placed on the operating table, and upon examination it is found that every one of the little scratches or lines have become a vaccine vesicle. That is, where a scratch or line is made there is a raised, blister-like (fig. 4) vesicle, whitish in color, and filled with a soft granular pulp. It is not sore-like, as in the vaccinated arm, neither does it contain any pus. The entire vaccinated area is then carefully washed with very warm water and soap and carefully scrubbed with a brush. It is rinsed with boiled sterile water and dried with a sterile towel. The vesicles are removed by a scrap-

ing or cutting process, with a curette, or sharp-edged spoon-like instrument. The pulp thus collected is weighed and mixed with six times its weight of sterile 50 per cent glycerine and then it is ground to a cream-like mixture, which constitutes the glycerinated vaccine of the market. The vaccine at this point is not ready for the market, for upon a bacteriologic examination it is found that there are a few bacteria present. These are the deep-skin bacteria of the animal, which cannot be eliminated by the washing, etc. These bacteria are of a perfectly harmless variety, but are removed from the vaccine before it goes on the market. This is simply done by allowing the glycerinated vaccine to stand from three to five weeks, with occasional shaking, during which time the glycerine kills off all the bacteria, but does not affect the vaccine bodies. The vaccine is tested bacteriologically from week to week, and when the test shows that the vaccine is germ free it is put up in capillary tubes in the usual manner. So when vaccine virus leaves the laboratory it is absolutely germ free and cannot cause any harm or transmit any disease for the reason that it does not contain any disease germs. To make a comparison with vaccine virus as made at the present time, it may be said that every cubic centimeter of milk contains from a few thousand to many millions of bacteria, uncooked food contains them in great variety. The saliva of every one's mouth contains thousands to millions of bacteria. It is more dangerous to be kissed than it is to be vaccinated, for in the act of kissing thousands of bacteria are exchanged by contact of the moist lips, and many throat and lung diseases are transmitted in this way. Every glass of drinking water (unless boiled) contains from a few hundred to a few thousand bacteria, and many diseases are produced by an impure water supply.

All the beliefs, claims and prejudices upon which the anti-vaccinationists stand are knocked from under them by the present method of vaccine production and its application. In times past the method of production was objectionable in the light of present scientific knowledge. And the methods of vaccinating as then practiced are not tolerated at this time. Years ago it was customary to vaccinate from arm to arm, by which method many diseases were transferred from an infected person to a

well one, but this is obsolete at the present time and is considered criminal to do so. The anti-vaccinationist makes his or her claims or argument upon facts and statistics raked up from bygone ages and before bacteriologic science pointed the way to make pure vaccine and so eliminate all objectionable features. They can't put forth one claim that vaccine at the present time is not pure and germ free, or that it will directly cause a harmful disease. It is to be admitted that there may be some post-vaccination complications, that is, some resulting trouble after a vaccination. But any such trouble is not due to the vaccine, but in every case it is due to an infection of the vaccination sore from improper attention to it. A vaccination sore should have the same attention as any other open wound and should never be exposed to the invasion of dust and dirt, as these are liable to carry harmful bacteria and seriously infect the sore. The arm should be bandaged from the time the vaccination is made until the sore is perfectly healed. If the sore becomes injured it should be thoroughly washed with boiled warm water and soap, and rebandaged with a sterile bandage. With this care and precaution there will be no bad after effects. Lockjaw (tetanus) is said to be one of the serious diseases following a vaccination. This disease is due to dirt, soil or earth, in which the germs of this disease reside, getting into the vaccination sore if it is allowed to remain unprotected by a bandage. Following the San Francisco earthquake and fire over a hundred thousand people were vaccinated during the following few weeks, and no serious trouble from this great number of vaccinations has been reported.

DR. R. G. ECCLES ARRIVES FROM THE ORIENT

Dr. R. G. Eccles and Mrs. Eccles, who are making a tour of the world, arrived in San Francisco just as we go to press. The doctor's work is well known throughout the United States, he having been a prolific writer and experimenter in the field of chemistry and pharmacy. For some years he was editor of *Merck's Archives*, and a contributor to *Merck's Report*, and other journals.

DR. FRANK S. JAMES

News of the death of this talented pharmaceutical writer came just as we were going to press last month. His remarkable career and attainments call for more than a passing notice at our hands, for he was the first of our contemporaries to give us words of encouragement when we first undertook, not without misgivings, to edit a drug journal.

Dr. James was for eighteen years the editor of the **National Druggist**, and it was soon after he had begun this work that he visited San Francisco to attend the meeting of the American Pharmaceutical Association. The acquaintance then made was renewed three years later when **The Pacific Druggist** fell into our hands. In the correspondence that grew out of this circumstance, how we did enjoy his beautiful letters!—beautiful in sentiment, beautiful in expression, and beautiful in chirography, for his handwriting was almost like copperplate. We saved them all, but they only fed the flames of April 19, 1906.

He was born in Alabama in 1841. As a boy he far outstripped his fellow-students in mathematics, the classics and English literature. "There is hardly a language," says the **National Druggist**, "with which he was not more or less familiar, and most of them he could read and translate with ease." At the age of twelve he took part in the composition of a comic French play, which was presented at the closing exercises of his school. At sixteen he went to Germany to study civil engineering, but at eighteen, having the good fortune to become a member of the household of Baron Justus v. Liebig, he became enthused over chemistry, and that became his favorite study.

His active mind, however, longed for

more worlds to conquer; so he studied medicine, graduating in Paris just before the Civil War broke out. He returned to America and made the first torpedoes used in the war. In the early seventies he became the associate editor of the **Memphis Appeal**, and in 1877 began the practice of medicine in St. Louis, and there he lived the remainder of his life. From 1888 to his death, he was editor of the **National Druggist**. Here his versatility showed itself in the wide range of subjects appearing from time to time, the columns of this journal being considerably enriched by translations from foreign publications.

Not only was he a chemist, but also a microscopist, an inventor of chemical and microscopical appliances, a mechanic, a writer, an artist and a poet! Moreover, to the writer he was a friend, and we bear this tribute to his worth and talents.

A complimentary dinner was given at the Hotel Portland, Portland, Oregon, to Professor Joseph P. Remington, on the occasion of his visit to that city last month. At the table sat Miss Kittie W. Harboard, secretary of the State Board of Pharmacy, class of '01; Louis C. Clarke, '76, of the drug firm of Woodard, Clarke & Co.; J. C. Wyatt, '95, of Vancouver, Wash.; E. B. Labbe, '95, and E. H. Laue, '95.

We note that the **Interstate Medical Journal** has recently purchased the **St. Louis Courier of Medicine**, and the consolidation commences with the July issue. This merger adds strength and prestige to the **Interstate**, which had previously absorbed three other medical journals within the past few years. We do not need more of such publications but better, and this looks like a step towards betterment.

DR. ENNO SANDER

We regret we were not among the jovial party who recently did honor to themselves in honoring their venerable friend, Dr. Enno Sander, on the celebration of his eighty-fifth birthday. As he was one of the founders of the college in 1863, filled the chair of botany and pharmacognosy from 1871 to 1873, and has ever since been a warm friend of the College of Pharmacy, the Alumni Association chose to observe this anniversary by a dinner and the presentation to the college of a life-size portrait of their guest. **Meyer Brothers' Druggist**, in describing the affair, says: "The pharmaceutical savant greeted his friends in a hearty manner, and gave them the treat of an informal chat, reciting many incidents of his early life, and interspersed his remarks with numerous anecdotes and the usual merry twinkle of his eye.

It is our good fortune to have among our warmest friends this most worthy pharmacist, "A fine old German gentleman, one of the olden time," and rejoice that his friends have seen to it that he should receive some of the honors due to a well-spent, unselfish life while he is yet young enough (for he is a very young old man) and bright enough to enjoy them.

The toasts, very suggestive, and happily "served," were as follows:

Toasts

DR. OTTO AUGUSTUS WALL, JR., Toastmaster.

"My friends! I need not look beyond my heart to look for you!"

Presentation of Portrait of Dr. Enno Sander.

HENRY O. A. HUEGEL,

President of Alumni Association.

"'Tis a goodly likeness and fair to look upon."

Acceptance of Portrait.

LORENZ A. SEITZ,

President St. Louis College of Pharmacy.

"I can no other answer make, but thanks, and thanks; and ever oft good turns are shuffled off with such uncurrent pay."

Our Guest.

DR. HENRY M. WHELPLEY.

"He knows what's what, and that's as high as Metaphysic wit can fly."

Our Honored Emeritus Professor.

DR. OTTO A. WALL.

"Thou wert my guide, philosopher and friend."

Dr. Sanders' Influence on Pharmacy in St. Louis."

PROF. JAMES M. GOOD.

"His heart is in his work,

And the heart giveth grace to every Art."

*Our Honorary Member.

WILLIAM H. LAMONT.

"You know I say just what I think and nothing more or less."

Enno Sander, the Man.

WM. C. BOLM.

"An honest man, close-buttoned to the chin, Broadcloth without and warm heart within."

We hope at an early date to introduce Dr. Enno Sander to our readers as one of our collaborators. He is to give us some insight into the manufacture of artificial mineral waters, a subject with which he is probably more familiar than any other person on this continent.

We note with regret the retirement of Mr. Joseph Helfman from the editorship of the **Bulletin of Pharmacy**. Since Mr. Helfman took the editorial management of the **Bulletin**, it has steadily grown in attractiveness and usefulness until it has become one of the most suggestive and interesting of our exchanges.

The new editor, Mr. Harry Mason, is no stranger to the pharmaceutical world, for he is an able writer and has for some years done excellent work in the pages of the **Bulletin** and elsewhere. We are sure that his new responsibilities will rest lightly on his shoulders, for he is a strong man and likes hard work.

Mr. S. D. Clough, the affable manager for the Abbott Alkaloidal Company of Chicago, has been presented with a fine boy. Mother and son both doing splendid. Congratulations, old man. Sorry we can't drink a bumper with you to the "Big Three."

*Dr. Sander is the only honorary member of the Alumni Association.

THE EARLY HISTORY OF THE CALIFORNIA PHARMACEUTICAL SOCIETY

By James G. Steele.

On an evening in October, 1869, seventeen pharmacists met in the back room of a drug store on Montgomery Street, San Francisco, to take into consideration the conditions of the drug business in that city and to devise ways and means whereby a community of interests should be fostered and a society formed to elevate the cause of pharmacy in California. It was resolved to call a meeting of the druggists of San Francisco and contiguous towns, to be held the following month.

This meeting was held on an evening in the middle of November, at the court room in the old City Hall, and an association, to be called the California Pharmaceutical Society, was formed, officers elected, and a committee appointed to draw up a constitution and by-laws. For some years meetings were held monthly.

Among other objects for which the Society was established were "the advancement of pharmaceutical knowledge and the elevation of the professional character of apothecaries throughout the State of California," etc.

The Constitution was modelled after that of the American Pharmaceutical Association, an organization ever held in esteem by the pharmacists of the Pacific Coast.

The **first annual meeting** of the society was held in San Francisco on the evening of Monday, October 11, 1869. Alexander McBoyle being secretary. Twenty-five pharmacists were elected to membership at that meeting. Wm. Simpson, the president, then read his report. James G. Steele presented the

report of the Executive Committee, which was ordered published, together with the Constitution and roll of members. The following persons were elected to serve as officers the ensuing year: President, John Calvert; First Vice-President, Jas. H. Widber; Second Vice-President, William M. Searby; Secretary, James G. Steele; Treasurer, Wm. J. Bryan; Executive Committee—William Simpson, Edward Neuman, W. C. Miller, William Geary and James G. Steele. At that meeting the subject of the establishment of a College of Pharmacy was considered.

The **second annual meeting** was held on Monday, October 10, 1870, at the rooms of the Society, No. 226 Sutter St., San Francisco. The report of the Executive Committee was read by Wm. Simpson, the chairman. Among the topics that had interested the Society during the past year, and which were referred to in this report, we find "Drug and Poison Bills," "Regulations Concerning the Drug Trade," "State and Preparation for Commerce of the Crude and Refined Chemical Products of California," "New Remedies," "Characteristic Botany of California," etc. The following officers were elected: President, John Calvert; First Vice-President, William Geary; Second Vice-President, G. G. Burnett; Secretary, James G. Steele; Treasurer, Wm. J. Bryan. The secretary reported 121 members as being upon the roll. Among the papers presented to the meeting were "Castor Oil, its production, sale, etc., on the Pacific Coast," by G. G. Burnett; "California

Wines, Brandies, etc.," by E. J. Richards; "Hops in California," by John Calvert.

The **third annual meeting** was held on the evening of Monday, October 10, 1871, at the rooms of the Society. The following were elected officers: President, A. J. Bauer; First Vice-President, Elmen Painter; Second Vice-President, William Geary; Recording Secretary, W. E. Mayhew; Corresponding Secretary, Wm. T. Wenzell; Treasurer, Wm. J. Bryan; Executive Committee—James G. Steele, John Calvert, W. E. Mayhew, W. T. Wenzell and Wm. Simpson. Papers were read on "Wenzell's Ergotine," by Wm. T. Wenzell; "Fluid Extracts vs. Tinctures," by John Calvert. During this year the Executive Committee of the Society drew up a bill "to regulate the practice of pharmacy in the City and County of San Francisco," which was passed by the Legislature and was in force until 1880, when, by the terms of the new Constitution of the State, it became special legislation, and as such unconstitutional. This law included sections regulating the sale of poisons.

Under this act (approved March 28, 1872) the following persons were elected by the Society as a Board of Pharmacy on May 10, 1872, to serve one year: John Calvert, president; W. T. Wenzell, William Simpson, J. W. Forbes; James G. Steele, Secretary.

The **fourth annual meeting** was held October 9, 1872. In addition to the President's report, the Board of Directors presented a lengthy report. The active membership was then 135, mostly residents of San Francisco.

On the 15th of December, 1871, the California Pharmaceutical Society was incorporated, with James G. Steele, John Calvert, W. E. Mayhew, Wm. Simpson, and Wm. T. Wenzell as

Trustees and Directors. Legal enactments touching pharmacy were noted in the following States; Rhode Island, Maryland, Pennsylvania, Georgia, Kentucky, Illinois, New York, Massachusetts and California.

In the following summer (1872) steps were taken to establish a College of Pharmacy, and in August of that year the California College of Pharmacy was incorporated and the following officers elected: President, Wm. T. Wenzell; Secretary, J. W. Forbes; Treasurer, James G. Steele; Trustees—Wm. T. Wenzell, J. W. Forbes, J. G. Steele, John Calvert, Wm. E. Mayhew and Wm. Simpson. The following were appointed the Faculty: Chemistry, Max Tschirner; Pharmacy, Wm. T. Wenzell; Materia Medica, Wm. M. Searby, and Botany, Dr. Herman H. Behr. Among the "New Remedies" noted in the proceedings of this year were nitrite of amyl, condurango, xylol, tri-ethyl ether, apomorphia, eucalyptus globulus, yerba mansa, yerba santa and "unk weed" (*Thaspium cordatum*). On the receipt of news of the burning of Chicago, a committee was appointed to solicit contributions from druggists and \$830.00 was collected and forwarded to the Chicago College of Pharmacy, to be applied to the relief of druggists who were financially crippled or rendered destitute by the fire. I quote the following from the secretary's report: "The third annual commencement exercises of the California College of Pharmacy shows the success of the infant school, which, as we all know, was the direct result of the existence of the Pharmaceutical Society. * * * It is incumbent on all, particularly the younger members, to evince by their attendance at our meetings and assistance in debates their appreciation of our association and a recognition of

the fact that progress in pharmacy requires continued effort and attention on the part of her votaries."

The following officers were elected: President, Wm. M. Searby; First Vice-President, Emlen Painter; Second Vice-President, Alfred Gros; Treasurer, Wm. J. Bryan; Secretary, G. G. Burnett; Directors—Wm. T. Wenzell, John Calvert, Wm. Geary, G. G. Burnett, A. M. Kurtz.

A report was read from W. T. Wenzell, Secretary of the Board of Pharmacy, showing that between May 1, 1874, and October 1, 1875, there had been registered 123 Pharmacists and 94 assistants. The total number of retail drug stores in San Francisco on October 1, 1875, was 92.

During this year arrangements were made for the affiliation of the California College of Pharmacy with the State University, which was effected in accordance with the following:

"Agreement:

"In accordance with the organic act of the University of California, the California College of Pharmacy is hereby affiliated with the University of California, upon the following basis:

"The College will maintain its own Board of Trustees and will continue to hold its own property as if this affiliation had not been agreed upon.

"The College will also appoint its own professors and establish its own course of instruction, subject to the general approbation of the Regents of the University.

"The University will confer the degree of Graduate in Pharmacy upon candidates recommended by the Board of Examiners of the College, and approved by a committee to be appointed by the Regents.

"This agreement may be cancelled by mutual consent at any time or by

the withdrawal of either party to it, after a twelve months' notice to the other party."

The **Seventh Annual Meeting** was held in San Francisco on the evening of October 13, 1875. The report of the secretary, G. G. Burnett, showed that regular monthly meetings had been held with a fair average attendance. Various papers had been presented, among which were: "Ethics of the Profession," by Emlen Painter; "Suppositories," by G. G. Burnett, and "Syrup of Iodide of Iron," by Max Tschirner.

At the monthly meeting of the society held on November 10, 1875, Emlen Painter and James G. Steele were appointed a committee to "edit and published the Proceedings of the Seventh Annual Meeting, together with such matter pertaining to the College of Pharmacy and Board of Pharmacy as might be of interest to the members." This issue of the "Proceedings" of the Seventh Annual Meeting contained also the Proceedings of the Third Annual Meeting of the College of Pharmacy and the report of the annual commencement exercises of the same, with abstracts of theses by members of the graduating class, and the report of Wm. T. Wenzell, secretary of the San Francisco Board of Pharmacy; also a prospectus of the College of Pharmacy, with a list of questions submitted to candidates for the degree of Graduate in Pharmacy at the previous annual examination.

At the **Ninth Annual Meeting** of the society, held in January, 1878, James G. Steele reported on behalf of the Pharmacopœial Committee, and this report was afterward sent to Professor John M. Maïsch, secretary of the American Pharmaceutical Association, and by him presented and read at the

meeting of the association at Toronto, in September, 1874. This report was subsequently referred to the Committee of Revision of the National Association, of which Professor Emlen Painter was afterwards appointed a member. Shortly afterwards the following gentlemen were appointed a Sub-Committee on Revision of the Pharmacopœia: Messrs. Painter, Steele, Calvert, Searby, Wenzell, Lengfeld and Tschirner, Emlen Painter being chairman.

The following persons were elected as officers for the ensuing year: President, William M. Searby; first vice-president, William T. Wenzell; second vice-president, James Topley; corresponding secretary, F. C. Bauer; treasurer, William J. Bryan; librarian and curator, Emlen Painter; editor, William M. Searby. Board of Trustees—William T. Wenzell, John Calvert, A. L. Lengfeld, Max Tschirner, Emlen Painter, C. D. Zeile, James G. Steele.

The faculty of the College of Pharmacy for the session of 1878 were as follows: William T. Wenzell, Professor of Chemistry; William M. Searby, Professor of Materia Medica; Hermann Behr, M. D., Professor of Botany; Emlen Painter, Professor of Pharmacy and Dean of the Faculty.

The **Tenth Annual Meeting** of the society was held the 9th of January, 1879, when the following members were elected: Edw. Selzer, E. W. Runyon, A. Wellendorf, Adolph Kahn, R. P. Merrill, Dr. T. Keefe, John Devine, John H. Dawson, E. W. Joy, S. A. McDonnell, E. S. Parker, P. Weiss, W. H. McLaughlin, J. J. McDonnell, F. C. Keil, H. B. Slaven, P. Flatow, C. L. Steylaars, J. W. Wood.

Professor Painter presented a report from the Committee on the Revision of the United States Pharmacopœia, including an outline of the progress

made by similar committees in the East and West. The following were elected officers for the coming year:

President, William Geary; first vice-president, James Topley; second vice-president, John T. Brady; corresponding secretary, F. C. Bauer; treasurer, William J. Bryan; librarian and curator, E. W. Joy; editor, William M. Searby.

The report of the secretary of the Board of Pharmacy showed 165 retail drug stores in the city.

The report of the secretary of the College of Pharmacy showed that on the sixth annual session there were 53 matriculants.

The **Eleventh Annual Meeting** of the California Pharmaceutical Society was held in San Francisco on January 9, 1880. By the president's report there were shown to be eight graduates from the infant College of Pharmacy. The society was felicitated by the president upon the numerous evidences of lively interest taken by the members.

The following officers were elected: President, John Calvert; first vice-president, A. L. Lengfeld; second vice-president, S. A. McDonnell; secretary, E. A. Schreck; treasurer, William J. Bryan; librarian and curator, P. S. Vreeland; editor, William M. Searby.

Among the papers read at this meeting were: "On Pills and Pill Excipients," by W. M. Searby, and "An Examination into the Composition and Merits of a Nostrum for the Cure of Opium Habit," by S. A. McDonnell.

The Council on Chemistry and Pharmacy

We size up drugs and other things,
Includin' all the trimmin's.
It makes no difference who we are,
We do it all per Simmons.

So send along your specimens
If you would get your innin's,
Or else stay out and wait to get
Perdition dealt per Simmons.

—American Druggist.

PROFESSOR J. P. REMINGTON VISITS THE COAST

If any pharmacist in this country has earned a vacation, it seems as if the subject of this notice was the man. Since the death of that tremendous worker, Dr. Charles Rice, nearly six years ago, Professor Remington has been called upon to take the chairmanship of the Committee of Revision of the United States Pharmacopœia, which work he had to assist in again revising after the passage of the Pure Food and Drugs Law. The last corrections of the committee are only just out. Then he had the lion's share of the work of revising—largely rewriting—the United States Dispensatory. During all this time he has held the chair (the chair could not hold him) of pharmacy in the Philadelphia College of Pharmacy, and has taken his part in the work of the American Pharmaceutical Association, the Pennsylvania and other State associations. And now he wants a rest.

And where could he so completely rest the tired body and refresh the weary brain as on the Pacific Coast? That is the reason why he is here. He has visited Seattle, Tacoma, Portland, and now he is in California. Here he is seeing the Yosemite, with its sheer precipices, its varied waterfalls, its rugged rocks, its snow-capped mountains. Here he is breathing the purest air, drinking the "livest" water, worshipping under the biggest trees in all Uncle Sam's domains. Soon he will be back in San Francisco, where less pleasant sensations await him. Yet we venture to say that all our discomforts, our wretched car system, our poor telephone service, our dust and dirt, our piles of brick and heaps of iron, our titanic struggle of man and horse and engine to bring order out of chaos and beauty out of desolation—all these

things will not efface from his memory the sights and scenes of that wondrous Yosemite.

Professor Remington is greatly enjoying meeting his old pupils, who are to be found in almost every city. Some of them are older than he, and by no means so well preserved. He will return to the East by way of Los Angeles and other cities in the Southwest and South.

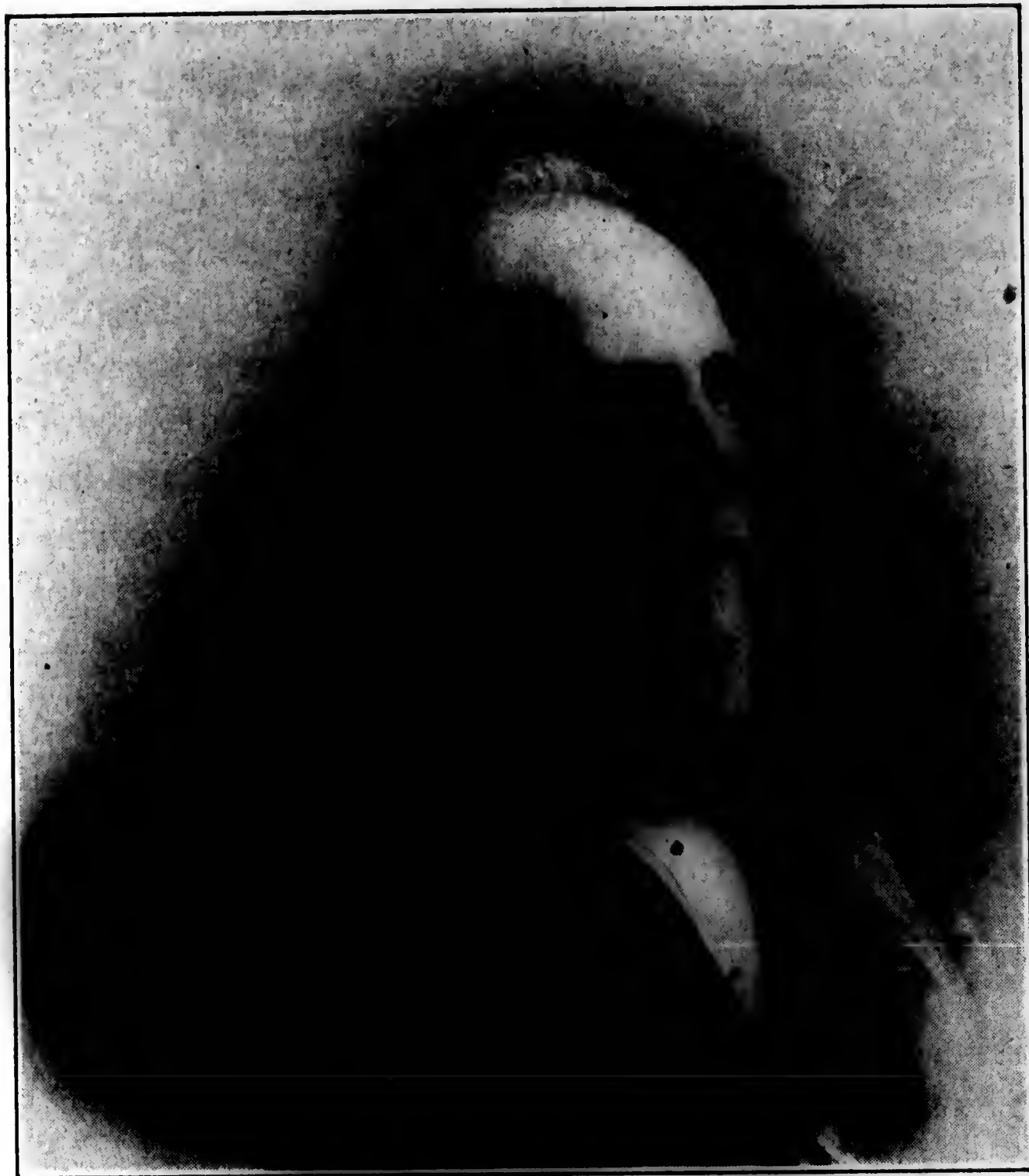
CONTRACT PLANS NOT DESTROYED

The D. C. S. N. and Limited Contract Plans Have Not Been Declared Illegal by the Terms of the Injunction

The government's theory is that the contracts were procured as the result of conspiracy growing out of the tripartite relations of the three branches of the trade, so the manufacturers graduating from the tripartite plan into the D. C. S. N. plan have been ordered by the court, as the outcome of this theory, to cancel their contracts.

But there is nothing in the injunction to prevent any manufacturer desiring hereafter to operate under the D. C. S. N., or Limited Contract plans, doing so by **individually adopting and putting into effect either one of these plans.** He can adopt any other lawful plan for the protection of his wholesale and retail prices, **but he must do it alone, not "in collusion" with any other manufacturer or with any other agency or agencies.**

The Herbert E. Law Scholarship in the California College of Pharmacy has been awarded to Miss Mabel E. Merriam. This bright and industrious young lady is now employed during her vacation in the store of Phillip & Phillip, at Fruitvale.



Professor John Calvert
1835-1906

EBERT—CALVERT

The closing months of the year 1906 witnessed the taking off of two prominent pharmacists, who occupied somewhat similar positions in their respective places of abode. For forty years both of them exerted an influence on pharmaceutical matters in the cities of their adoption; both aided in securing the recognition of pharmacy by appropriate legislation, both favored advanced education for pharmacists, both filled for a time chairs in colleges of pharmacy, both stood out against oppressive legislation affecting the drug trade, and both were at times unpopular with their associates because of frank expressions of opinion in opposition to the views of others. In addition to this both were men of more than common attainments in the scientific and literary world, Ebert being a Doctor of Philosophy of a German university, and Calvert well versed in

literature, especially that of France. Ebert was known beyond the confines of his own State, having for many years been an active member of the American Pharmaceutical Association, whose meetings he always attended. While Calvert was a loyal member of the Association for twenty years, he was prevented by time and expense from attending its meetings, which were generally held in distant Eastern cities.

All the drug journals of the country vied with each other in doing honor to the memory of Albert E. Ebert. While we feel that the half has not been told that might have been said in his praise we will content ourselves at this remote day in recounting a few of the facts in the life of our late friend, Professor John Calvert, because we think his memory deserves more than a passing mention. He was born in Bishop Auckland, Durham County,

England, February, 1835, and educated at the grammar school in that town. These "grammar schools," as they are called, were the best schools in England in those days, and might be called secondary schools. After leaving school he was apprenticed to Mr. Teneman, a "chemist" in the city of Durham. After serving a five years' apprenticeship he went to Paris "to attain a better knowledge of the French language." Here he was employed in a pharmacy for two years, when he returned to England and attended the School of Pharmacy of the Royal Pharmaceutical Society of Great Britain. On completing the course there he passed the "Major" examination, receiving the title "Pharmaceutical Chemist" in the year 1861. Shortly after this he engaged in the drug business in Leeds, England, but disposed of his store the following year, and proceeded to Victoria, B. C., via Cape Horn. He made a short visit to the Cariboo mines, but while he had considerable knowledge of mineralogy, he was not a successful miner; so he returned to Victoria, where he had a drug store for about two years. In 1865 bad times struck Victoria, and he left, coming to San Francisco, where he entered the employ of Wakelee & Co. In 1868 he and Emlen Painter, a fellow employee, bought the store of Charles Hinkley, on Kearny and Clay streets, where they quickly built up a fine business and made money. Both he and Mr. Painter took a lively interest in establishing and afterwards maintaining the California Pharmaceutical Society and the College of Pharmacy. He was at different times president of both institutions, and for three years professor in the College of Pharmacy. He read a number of papers before the society, and was one of its

most faithful attendants and efficient officers. In later years he was a member of the State Board of Pharmacy for a term of four years, and for about the same period was its secretary. In all his work for the society and college his motives were absolutely free from selfishness. He sought the elevation of pharmacy by means of an advanced pharmaceutical education. As an examiner he was feared, because his manner was curt and unsympathetic. Yet his sympathy always went out to the candidate who was doing his best and contending with untoward circumstances.

In all matters affecting pharmaceutical legislation he took a lively interest, and his time was freely given to these things when the occasion arose. He had a good deal to do with the framing of the first pharmacy laws of California and with the making of public sentiment in favor of such legislation.

So, as we stated at the beginning, Calvert and Ebert were conspicuous in the ranks in two important centers of pharmaceutical movement, Chicago and San Francisco, and for what they did and their unselfish devotion to the cause of their fellow druggists, we do well to do them both honor.

\$5,000,000 for Microbes

It is said that a wealthy Paris banker, a noted Jewish philanthropist, has recently bequeathed \$5,000,000 to the Pasteur Institute for medical research.

It is hoped that microbes which have kept their identity secret will come to the front, "fess up" and ask for terms of immunity.

During 1906 there was one life lost for every 366 persons employed in coal mining.

MEDICINAL AND POISONOUS PLANTS OF CALIFORNIA

By Albert Schneider, Ph. D.

Professor Economic Pharmaceutical Botany, Histology and Bacteriology in the
California College of Pharmacy.**I.—Introduction.**

The following list of medicinal and poisonous plants of California includes both native and introduced species and varieties. The list is not complete, as many of the more common fruit trees, shrubs, weeds, garden and pot herbs having more or less medicinal use, are not included, as they are almost universally known, and a mention here would be mere waste of space.

Details regarding range and distribution and description of species are omitted, as this information can be obtained in any handbook on California flora. A fuller discussion of the well-established medical properties of well-known medicinal plants is also omitted, as that information can be obtained from any standard work on vegetable drugs, such as the U. S. National and other Dispensatories, U. S. Pharmacopœia, text-books on materia medica, such as Maisch's, Wall's, Sayre's, Culbreth's and others. An effort has been made to cite the popular medicinal uses of plants by Indians, early settlers and the laity generally. With many of the plants mentioned this is the only use known. A further careful study may put many of these plants to the use of scientific medical practice.

It is found that there is a marked similarity in the home drug plant medication of the Indians and settlers. In fact, the settlers first learned the medical use of native plants from the natives. This is more fully treated in a paper on "The Medicinal Plants of the California Indians" (315). It will be found that the vast majority

of plants used medicinally by Indians and the laity have laxative, diuretic and diaphoretic properties. Some are used for their antiseptic and irritant (counter-irritant) properties. Experience has taught that if bowels, kidneys and skin are in good working order, sickness is not to be feared. This knowledge is, however, not scientifically deduced. The popular medicine is based upon the experience of many generations, and is not as haphazard as it is generally believed to be.

It is highly probable that some of the purely poisonous plants cited may finally prove of value medicinally. Within recent years considerable work has been done with regard to plants poisonous to cattle. Dr. Chesnut, of the Department of Agriculture, has made a careful study of the action of permanganate of potassium in counteracting the effects of the alkaloids of many of the poisonous plants of Montana and Colorado. His conclusions are that this substance, owing to its oxidizing powers, is a very effectual antidote if given before the alkaloid has been absorbed into the system.

As will be observed, cultural suggestions are given with a comparatively few plants only. This may be because nothing is known of the cultivation of many, or they may be so familiarly known as cultivated plants that a mention of that fact would be superfluous. It is desired to make clear that the entire subject is treated suggestively, serving merely as an introduction. Should, for example, some one contemplate the cultivation of digitalis, of valerian, of lavandula, or

of crocus, the statements made regarding these drug plants and the citations of the literature pertaining thereto, would serve as a means of securing fuller, more exact information as to actual cultural procedure. Actual practice cannot be taught from books, and the would-be grower of drugs must, after all, learn through actual field and garden operations. It is also urgently advised to guard against illogical attempts, nor is it advised to make attempts out of idle curiosity. If a reasonably plausible plan suggests itself, study it thoroughly in all of its aspects and then, if still satisfied as to its practicability, begin active operations consistently and energetically. Half-hearted attempts quite generally result in total failure and serve furthermore to discourage others. The following questions should be carefully considered before an attempt at drug culture is made:

1. Is there an adequate market demand for the drug?
2. Is the market demand quite constant, or does it fluctuate greatly?
3. Has it been demonstrated that the plant will thrive in the particular locality in which it is to be grown?
4. Are the soil and climate well suited to the plant to be grown?
5. Is the necessary labor available?
6. Is the necessary machinery available?
7. Must artificial heat be employed in drying?
8. On how large a scale must cultivation be undertaken to make the venture reasonably profitable under average conditions of yield and of market demand and value?
9. How much capital will be required to undertake the venture properly and profitably?
10. Will there be strong competition and what influence will this have upon

launching the enterprise and upon the net results?

11. Will it be advisable also to become manufacturer?

12. Is it intended to grow the drug for the retail or wholesale market, or both?

13. What are the enemies (pests, animal and vegetable) of the plant? What are the remedies?

14. How can the yield per acre be increased?

15. How can the percentage of active constituents be increased?

In the case of medicinal plants which have not yet been subjected to cultivation it remains to be determined what effect this will have upon the active constituents. Furthermore, what effect will transplanting to a new country have upon yield and active constituents? All of these matters must be considered very carefully, and the possibilities and probabilities carefully weighed.

The references cited with the plants mentioned will serve to readily obtain further information of a special nature. Unless otherwise stated it may be assumed that the plant cited is a native of the State and that it may be found in widely distributed areas within the State.

Some plants cited are of no practical value, but they are given in order to meet the request for information pertaining to them, which has come in from time to time. It may again be repeated that our knowledge of the properties of most of the native medicinal plants of California is very limited indeed. Some of them enjoy such a wide popular use that they should be thoroughly investigated chemically and therapeutically in order that it may be ascertained upon what these reputed virtues depend. This is, in fact, the prime object in preparing the follow-

ing list of plants and the references to literature cited in the text and at the close.

II.—The Native and Introduced Medicinal and Poisonous Plants of California.

1. **Abies concolor** Lindl. White fir. Coniferæ.

This tree is common throughout the State. Yields balsam. A decoction of the terminal branches is much used as a diuretic and in the treatment of malaria. (Calif. Geo. Survey. Bot. 2: 118.) (U. S. Disp. 1538.)

Numerous other species and varieties are common and have similar uses.

2. **Abroma augusta** L. Wollut comul. Sterculiaceæ (Byttneriaceæ).

A handsome evergreen greenhouse tree from India, East Indies, Asia and Australia. The sticky white secretion from the fleshy root bark is said to be of great value in dysmenorrhœa. Fiber used for cordage.

A. fatuosa L. is also cultivated. (American Journ. Med. Sci., July, 1873.)

3. **Abronia fragrans** Esch. Fragrant abronia. Nyctaginaceæ.

A small herbaceous plant said to range from the Columbia river southward. Found in Southern California, Utah and New Mexico. Flowers very fragrant, and would, no doubt, prove useful in the manufacture of perfumery and sachet powders. (U. S. Geo. Survey. Wheeler's Report. Bot. 6: 49.)

4. **Abronia latifolia** Esch. Nyctaginaceæ.

Common along the seashore from Vancouver Island to Monterey (Calif.). Flowers fragrant, as **A. fragrans**. Roots are eaten by the Indians.

5. **Abrus precatorius** L. Wild licorice. Crab's eye vine. Prayer beads. Jequirity. Leguminosæ.

A green house climber, native of India, which has been introduced into

Africa, West Indies, South America and other countries. In the West Indies the roots are used like licorice. Seeds are very poisonous; used in Brazil as standards of weight. Used also in the treatment of conjunctivitis and keratitis. Seeds said to be eaten in Egypt; how prepared is not stated. Old-time criminal poisoning agent. Seeds are dangerous playthings for children. (Prac. A. Ph. A. 32; 182-184, 1884.)

6. **Acacia** species. Acacias. Leguminosæ.

Numerous species and varieties have been introduced from Australia and elsewhere. No attempt has thus far been made to classify them accurately. Some assert that perhaps one hundred and more species and varieties are found in the State.

The gum (Gum Arabic) bearing acacias are thorny or prickly shrubs adapted to dry, sandy soils. The Australian gum or wattle gum is obtained from **A. pycnanthe** Beuth., **A. decurrens** Willd., **A. homolophylla** and perhaps other species. The bark, leaves and unripe fruit of some species are very rich in tannin and have been used in tanning. Some yield excellent timber.

It is to be hoped that someone will undertake and complete the great task of properly identifying the species and varieties of Acacias found in the State. (U. S. Disp.) (Bailey. Cycl. Am. Hart 5.)

7. **Acacia catechu**. Gum acacia. Cutch. Leguminosæ.

Yields the familiar gum acacia, catechu or cutch of the pharmacists. Cultivated in the southern part of the State; not commercially, however.

8. **Acacia farnesiana**. Acacia. Leguminosæ.

A native of India cultivated in the southern part of the State. The very

fragrant flowers yield a very delicious perfume on distillation. Extensively cultivated for perfumery purposes in Southern France. Worthy of careful consideration for culture purposes.

9. **Acacia Gregii.** Acacia. Leguminosæ.

Yields shellac in Arizona. **Larrea mexicana** also yields shellac. Both species occur in the State.

10. **Acacia pycnanthe** Benth. Wattle gum. Leguminosæ.

The bark is much used medicinally in Australia. The infusion is given in infantile diarrhoea and catarrhal ophthalmia. The tincture, mixed with glycerine, is useful for sore nipples, discharging ears and chapped lips. A bark wash is useful in sore throat, as a gargle. The gum is given internally to cure piles, and in veterinary practice is applied to raw shoulders. Action, no doubt, due to the tannin present.

Other useful species of Acacia are **A. verec** and **A. Adansonii**, which yield gum senegal. **A. ferruginea** and **A. leucophæa** yield an intoxicating liquor. Whether these and some other species occur in the State is not definitely known. They would, no doubt, thrive well.

11. **Acer macrophyllum** Pursh. Large-leaved maple. Rutaceæ.

Common ornamental tree in northern part of State. Medicinal properties doubtful and use uncertain.

12. **Acer negunda Californicum** Sarg. Box elder. Rutaceæ.

A common native. Medicinal use doubtful.

13. **Acer saccharinum.** Sugar maple. Rutaceæ.

Yields maple sugar. According to Weschke this tree contains an alkaloid. (Contrib. Dept. Pharm., Univ. Wisconsin, 1886.)

14. **Achillea millefolium** L. Yarrow. Milfoil. Compositæ.

A well-known old-time medicinal herb, common everywhere. Yields oil. Has an extensive popular medicinal use among Indians and settlers. Tea is used in consumption, stomachache, headache; a lotion is used for sprains, etc. (Contrib. U. S. Natl. Herb. 7: III, 391.)

15. **Achras sapota.** Nose berry. Sapodilla. Sapotaceæ.

Native of West India, cultivated in Southern California. Fruit edible. Yields "chicle" or chewing gum.

16. **Achyraænæa mollis** Schauer. Compositæ.

Indians of California use the seeds for pinole (parched, ground and mixed with water). (Contrib. U. S. Natl. Herb. 7: III, 392.)

17. **Aconitum species.** Monk's-hood. Ranunculaceæ.

The native species are no doubt all poisonous and require further study chemically. (Calf. Geo. Survey. Bot. 1: 12.)

18. **Aconitum columbianum** Nutt. Aconite. Monk's-hood. Ranunculaceæ.

A native found in moist, open woods along brooks of Oregon, Washington, California, Montana, Wyoming, Colorado and South Dakota. This is the most important of the native species. All parts of the plant are poisonous, seeds and roots most. The poisonous principle of this plant is, no doubt, closely related to that of **A. napellus** L. It requires further careful study. The roots have been mistaken for horse-radish and the leaves for those of parsley. Many human beings and many heads of cattle have been poisoned by it. Treatment as for aconite poisoning.

19. **Aconitum fisheri** Reich'b. Aconite. Ranunculaceæ.

This European species is by some authorities believed to identical with **A. columbianum**. This is a controversy of considerable importance. **A.**

fisheri is said to be used as an adulterant of the official *A. napellus*.

20. *Aconitum napellus* L. Aconite. Wolf's-bane. Monk's-hood. Ranunculaceæ.

A well-known, very important medicinal plant of which garden varieties (English and German aconites) are grown throughout the State. Some have escaped from cultivation. Aconite for medicinal purposes is extensively grown in England and Germany. It could, no doubt, be very profitably grown in California. Good leaves are worth about fifteen to twenty cents per pound wholesale. (G. S. Levy. *Aconitum napellus*. Calif. Coll. Pharm., Thesis, 1901.) (W. J. Peters. *Aconitum napellus*. Calif. Coll. Pharm., Thesis, 1902.)

21. *Acorus calamus* L. Sweet flag. Araideæ.

The dried rhizomes have been much used as a popular blood purifier and bitter aromatic tonic, and as a sialagogue. Used in flatulency, colic and typhoid conditions. Also used in beer making, in the preparation of hair powders, sachet powers, perfumery and in flavoring gin. Grows in marshy soils. (Miss B. Hutchins. *Calamus*. Calif. Coll. Pharm., Thesis, 1901.)

22. *Actæa eburnea* Rydb. Ranunculaceæ.

This plant is said to be poisonous and requires further study.

23. *Actæa spicata*. Cohosh. Baneberry. Ranunculaceæ.

The black berries are poisonous; mixed with alum they yield a black dye. Roots are antispasmodic and expectorant.

24. *Actæa spicata arguta* Torr. Baneberry. Ranunculaceæ.

Found in rich, rocky woodland soils. Highly esteemed as a medicine by the Indians. Acts as a purgative and in large doses as an emetic. The varieties

A. spicata alba and *A. spicata rubra* have similar uses and properties. (F. Stearns, Proc. A. Ph. A., 1858.)

25. *Adenostoma fasciculatum* Torr. Chamisso. Greasewood. Rosaceæ.

Given to sick cows by the Coahuilla Indians according to Barrows. Requires further study.

26. *Adenostoma sparsifolium* Torr. Yerba del pasmo. Bastard cedar. Convulsion herb. Rosaceæ.

Used by early Spanish settlers as a remedy for numerous ailments, as colds, cramps, lockjaw, snake bite and tetanus. The powdered twigs and leaves, fried in oil or grease, are used as an ointment. The twigs, steeped in a drink, are given to produce vomiting and to give bowel relief. (See paper by Barrows.) (Bailey's Cyclo. Am., Hart, 24.)

27. *Adiantum capillus-veneris* L. Venus's hair fern. Polypodiaceæ (Ferns).

A well-known fern. A syrup (Sirop de capillaire) of this plant is much used as a cough remedy. (Calif. Geo. Survey. Bot. 2: 342.)

28. *Adiantum pedatum* L. Maiden hair fern. Polypodiaceæ.

Used in chronic catarrh and lung trouble. Stems used by Indians in basket and hat making. *A. nigrum* is similarly used.

29. *Æsculus californica* Nutt. California buckeye. Horse chestnut. Sapindaceæ.

A native ornamental tree. The bark is used to cure toothache and other aches. The fresh, unripe fruit is used by Indians to poison fish. The ripe fruit, raw or cooked, is eaten by Indians, fed to squirrels and given to horses to remove bots. Bark is said to produce abortion in cows. The mistletoe growing on this tree is also said to produce abortion. Requires further careful study as to chemistry of con-

stituents and physiological action. (Contrib. U. S. Natl. Herb. 7: III, 366.) (Calif. Geo. Survey. Bot. 1: 106.)

30. *Æsculus globra* L. Ohio buckeye. Sapindaceæ.

A well-known tree which is cultivated in many parts of the United States. Poisonous in over doses, producing symptoms like those by corn cockle (*Agrostemma githago*). The fruit yields abundant starch. Roots and fruit used as a substitute for soap, due to the saponin present. Said to be useful in portal congestion.

31. *Æsculus hippocastanum* L. Horse chestnut. Sapindaceæ.

A well-known ornamental tree which is grown in nearly all parts of the United States. The bark and nuts are used as snuff and in the preparation of a wash for ulcers. In England the fruit is fed to cattle. (Am. Journ. Pharm., 44: 400.)

32. *Æsculus pavia* L. Red buckeye. Sapindaceæ.

A native of the Eastern and Southern United States, but can be cultivated almost anywhere. The active constituent of this plant is supposed to be nearly identical with that of the corn cockle. It is especially abundant in the young shoots and in the seed. Used to poison fish. It is also reputed to be a useful convulsant. (E. E. Batchelor. Am. Journ. Pharm., 45: 144.)

33. *Agaricus campestris* L. Toadstool. Mushroom. Agaricaceæ (Fungi).

Edible. At first refused by Indians until taught by whites. Reported to be poisonous.

A Paris pharmacist whose dispensing error caused the death of an old lady suffering from heart disease, was fined \$120, and compelled to pay the funeral expenses, \$400, and to pay an annuity of \$160 to a relative of the victim.

Will Still Control Retail Price of Proprietaries

To show that the Indianapolis decision does not prevent a proprietor from protecting himself from loss of business and the retailer from loss of legitimate profit, the Miles Medical Company, having cancelled all their original contracts to which jobbers and retailers were parties, are now making new contracts direct with the retailers. In their circular they quote the following paragraph from the injunction decree:

"Nothing herein shall be construed to restrain or interfere with the action of any single corporation, partnership or individual by its, their or his officers or agents from acting or contracting in any lawful manner with respect to its, their or his own corporate, firm or individual property or affairs, and no provision or clause of this decree shall be held to restrain, affect or enjoin the sale of any drugs or merchandise, or the making or securing of any contract, plan or schedule as described in the bill of complaint when such sale or contract, plan or schedule relates only to trade or commerce within a particular state."

After stating that they will "lawfully protect their business from the attack of the professional price demoralizers," they say:

These contracts are formulated and issued without consultation with or the knowledge of any organization or any individual in the trade, and will be established, operated and maintained without understanding, agreement or combination with any persons or organization. Such contracts are therefore unaffected by the decree mentioned.

This will enable you to purchase the Dr. Miles Medicines, which you cannot otherwise do, as only authorized agents may obtain the goods.

Doubtless many other firms whose business comes within the regulations of interstate laws will take a similar course.

IMPORTANT RULING ON LABELING.

Labels Must State Alcohol Contents of All U. S. P. Preparations.

Percentage of Alcohol in the Federal Pure Food Law Means Absolute Alcohol.

Some of our subscribers having asked us whether it was necessary that labels of preparations of the United States Pharmacopœia and National Formulary should state the percentage of alcohol which they contain, and also whether the percentage should be given in figures to represent official alcohol or absolute alcohol, we addressed the following communication to the Secretary of Agriculture:

San Francisco, May 31, 1907.

Hon. James Wilson,

Secretary of Agriculture.

Dear Sir:

Will you kindly inform us whether preparations of the United States Pharmacopœia, such as paragoric, tincture of arnica, etc., are required to bear a label showing the percentage by volume of alcohol which they contain?

Also, in giving the percentage of alcohol in all preparations, should the percentage of absolute alcohol or official alcohol be given?

Your reply will greatly oblige,

Yours respectfully,

THE PACIFIC PHARMACIST.

Per W. M. Searby.

To this letter we received the following reply:

W. M. Searby,

410 Kearny St.,

San Francisco, Cal.

Dear Sir:

In reply to your favor of May 31st, we desire to state that the per cent of absolute alcohol contained in a remedy should be indicated on the label di-

rectly under the name of the product. This also applies to United States Pharmacopœial and National Formulary preparations.

Respectfully,

H. W. WILEY,

Chief.

This is a most important matter to every pharmacist, wholesale and retail. It will put every one to the expense of either having a new label printed for each of these official preparations, or an extra label bearing the alcohol per cent to be used in connection with the ordinary label. In consequence of the differing percentages of alcohol present in these official preparations, it will probably be much more inconvenient and almost as expensive to have these extra labels printed as it will be to have a complete new outfit for alcohol-containing preparations. It will not be an easy matter to give the exact percentage in all of these preparations. In our last issue we noted the fact that there were considerable differences of opinion among manufacturers as to the amount of alcohol present in fluid extracts, tinctures, etc. Different operators, working with different quantities under somewhat different conditions, will differ from each other in their estimate of the amount of alcohol present in the finished product. The loss from evaporation in percolating, filtering, etc., varies with different manipulators. All of these discrepancies tend to throw the manufacture of alcoholic galenicals into the hands of the large manufacturing concerns who, operating on large quantities, can determine in each case exactly the alcohol content. Having determined, after careful experimentation, precisely the percentage of alcohol in the finished product, they can establish their standard, and make the preparation conform to that every time. They can then sell the

same preparation with the same label from year to year.

It would seem as if the Pharmacopœia Revision Committee should prepare and publish a statement showing the percentage that should be in the finished product in the case of every alcoholic galenical. This percentage might be given in figures somewhat elastic; for instance, a statement similar to that of the purity rubric in other cases would read somewhat like this: "fluid extract of — should contain from 44.5 to 46% of absolute alcohol." Such a range would be near enough for the preservation of the preparation, and would leave room for such variation as might occur through slightly different modes of manipulation.

The whole subject is a large one, and it is not possible as yet to foresee the full effect of Dr. Wiley's interpretation of the law.

LIST OF FOOD INSPECTION DECISIONS.

- | | | |
|----------|---|---|
| F. I. D. | { | 1-39 practically concern imported foods only and were not issued under the food and drugs act, June 30, 1906. |
| F. I. D. | { | 40. Filing Guaranty.
41. Approval of Labels.
42. Mixing Flours.
43. Relabeling of Goods on Hand. |
| F. I. D. | { | 44. Scope and Purpose of Food Inspection Decisions.
45. Blended Whiskies. |
| F. I. D. | { | 46. Fictitious Firm Names.
47. Flavoring Extracts.
48. Substances Used in the Preparation of Foods. |

FOOD INSPECTION DECISIONS.

[F. I. D. 40.]

FILING GUARANTY.

In order that both the Department and the manufacturer may be protected against fraud it is requested that all guarantees of a general character filed with the Secretary of Agriculture in harmony with Regulation 9, Rules and Regulations for the Enforcement of the Food and Drugs Act, June 30, 1906, be acknowledged before a notary or other official authorized to affix a seal. Attention is called to the fact that when a general guaranty has been thus filed every package of articles of food and drugs put up under the guaranty should bear the legend, "Guaranteed under the Food and Drugs Act, June 30, 1906," and also the serial number assigned thereto, if the dealer is to receive the protection contemplated by the guaranty. No other word should go upon this legend or accompany it in any way. Particular attention is called to the fact that nothing should be placed upon the label, or in any printed matter accompanying it, indicating that the guaranty is made by the Department of Agriculture. The appearance of the serial number with the phrase above

mentioned upon a label does not exempt it from inspection nor its guarantor from prosecution in case the article in question be found in any way to violate the food and drugs act of June 30, 1906.

Approved:

JAMES WILSON,

Secretary of Agriculture.

Washington, D. C., October 25, 1906.

(F. I. D. 41.)

APPROVAL OF LABELS.

Numerous requests are referred to this Department for the approval of labels to be used in connection with articles of food and drugs under the food and drugs act of June 30, 1906. This act does not authorize the Secretary of Agriculture nor any agent of the Department to approve labels. The Department therefore will not give its approval to any label. Any printed matter upon the label implying that this Department has approved it will be without warrant. It is believed that with the law and the regulations before him the manufacturer will have no difficulty in arranging his label in harmony with the requirements set forth. If there be questions on which there is doubt respecting the general character of labels, decisions under the food and drugs act will be rendered, of a public character and published from time to time, covering such points.

Approved:

JAMES WILSON,

Secretary of Agriculture.

Washington, D. C., October 25, 1906.

Section (1) of Regulation 17 provides that—

The regulation regarding the principal label will not be enforced until October 1, 1907, in the case of labels printed and now on hand, whenever any statement therein contained which is contrary to the food and drugs act, June 30, 1906, as to character of contents, shall be corrected by a supplemental label, stamp, or paster. All other labels now printed and on hand may be used without change until October 1, 1907.

It is held that under this regulation labels which contain statements relating to the name of manufacturer, the place of manufacture, etc., which are not in harmony with the general meaning of the law may be used if on hand on the 1st of January, 1907, the day on which the regulations become effective. Any statement, however, respecting the character of the contents which is false or misleading should be corrected as indicated. The correction should secure the obliteration of the misstatement either by placing the supplemental label or paster over it or obliterating it in some other way. If the goods contain artificial color or preservative other than ordinary condimental substances (salt, sugar, vinegar, wood smoke, spices, and condiments of all kinds), that fact should appear upon the supplemental stamp or paster. If any of the words required to be placed upon drugs and foods in the specific wording of the act do not appear upon the label, such as alcohol, opium, etc., it is held that the correction must include the enumeration of these substances, as provided for in Regulations 28 and 29.

If goods that are packed and sealed in a carton which contains the bottle or other package also sealed and labeled were not in the hands of the manufacturer after January 1, 1907, but had been already delivered to the jobber or dealer, it will be held sufficient to mark the external carton alone, provided the goods are sold only in the unbroken carton. If the container, however, holds a large number of separate packages, it will be necessary that each of the separate packages to be sold as such shall be labeled with the words required specifically by the act.

It must not be forgotten that Regulation 17, section (1), is for the purpose of avoiding the expense of relabeling articles already packed and branded at the time the regulations go into effect and which necessarily could not have been so packed and branded with any intent to evade the provisions of the law, and it is expected that jobbers and dealers will do everything in their power to bring the packages now on hand into as close harmony with

the provisions of the act and the regulations made thereunder as possible.

All articles in the hands of manufacturers, jobbers, and dealers on the 1st day of January, 1907, which are sold wholly within the State in which they are found on that date are exempt from the provisions of the act. Thus the use of the supplemental label, stamp, or paster is required only on those articles which on or after the 1st day of January, 1907, enter interstate commerce or are offered for sale in the District of Columbia and the Territories. It is believed that the provisions of Regulation 17, section (1), can be complied with without great annoyance and expense. It will be deemed sufficient if the supplemental pasters and labels are attached at the time the goods are shipped beyond the State line, that is, they need not necessarily be attached to such article on the 1st day of January, but at any time thereafter when prepared for interstate commerce. Thus the labor of meeting this requirement will be distributed according to the exigencies of actual trade. On and after October 1, 1907, the labels must be originally properly printed, and no further amendment will be considered.

Approved:

W. M. HAYS,
Washington, D. C., November 6, 1906.

(F. I. D. 44.)

SCOPE AND PURPOSE OF FOOD-INSPECTION DECISIONS.

From the tenor of many inquiries received in this Department it appears that many persons suppose that the answers to inquiries addressed to this Department, either in letters or in published decisions, have the force and effect of the rules and regulations for the enforcement of the food and drugs act of June 30, 1906. The following are illustrations of the inquiries received by this Department:

Must we stamp all goods as conforming to the drug and food law, whether they have alcohol and narcotics therein, or not?

On a brand of salad oil, which is a winter-strain cotton-seed oil, can it be sold under the brand of salad oil, or must it state that it is cotton-seed oil?

It seems highly desirable that an erroneous opinion of this kind should be corrected. The opinions or decisions of this Department do not add anything to the rules and regulations nor take anything away from them. They therefore are not to be considered in the light of rules and regulations. On the other hand, the decisions and opinions referred to express the attitude of this Department in relation to the interpretation of the law and the rules and regulations, and they are published for the information of the officials of the Department who may be charged with the execution of the law and especially to acquaint manufacturers, jobbers, and dealers with the attitude of this Department in these matters. They are therefore issued more in an advisory than in a mandatory spirit. It is clear that if the manufacturers, jobbers, and dealers interpret the rules and regulations in the same manner as they are interpreted by this Department, and follow that interpretation in their business transactions, no prosecution will lie against them. It needs no argument to show that the Secretary of Agriculture must himself come to a decision in every case before a prosecution can be initiated, since it is on his report that the district attorney is to begin a prosecution for the enforcement of the provisions of the act.

In so far as possible it is advisable that the opinions of this Department respecting the questions which arise may be published. It may often occur that the opinion of this Department is not that of the manufacturer, jobber, or dealer. In this case there is no obligation resting upon the manufacturer, jobber, or dealer to follow the line of procedure marked out or indicated by the opinion of this Department. Each one is entitled to his own opinion and interpretation and to assume the responsibility of acting in harmony therewith.

It may be proper to add that in reaching opinions and decisions on these cases the De-

partment keeps constantly in view the two great purposes of the food and drugs act, namely, to prevent misbranding and to prohibit adulteration. From the tenor of the correspondence received at this Department and from the oral hearings which have been held, it is evident that an overwhelming majority of the manufacturers, jobbers, and dealers of this country are determined to do their utmost to conform to the provisions of the act to support it in every particular, and to accede to the opinions of this Department respecting its construction. It is hoped, therefore, that the publication of the opinions and decisions of the Department will lead to the avoidance of litigation which might arise due to decisions which may be reached by this Department indicating violations of the act, violations which would not have occurred had the opinions and decisions of the Department been brought to the attention of the offender.

JAMES WILSON,

Secretary of Agriculture.

Washington, D. C., December 1, 1906.

FOOD INSPECTION DECISION 46, AS AMENDED.

Fictitious Firm Names.

F. I. D. 46, issued on December 13, 1906, on the subject of fictitious firm names, is hereby amended to read as follows, for the purpose of obviating any ambiguity that may have existed in the original decision. The amended portion is set in italics.

The following extract from a letter is typical of a question frequently asked:

In connection with our manufacture of flavoring extracts, we produce an article containing a certain percentage of artificial coumarin and vanillin. This product has been placed on the market under the name of _____ and Company, a fictitious firm, although dealers have always understood that it was our product. Is there any objection to our continuing to brand the product as manufactured by _____ and Company?

The same question has frequently been asked by importers who state that they desire to assume the responsibility for particular brands.

It has been held by the Attorney-General (F. I. D. 2) that—

the words " * * * Daisy Sugar Corn, _____ Company, Milwaukee, Wis.," clearly imply that the goods referred to are manufactured or prepared by that company in Wisconsin. The general public, unfamiliar with trade practices, would inevitably reach that conclusion.

Regulation 18 provides that if the name of the manufacturer and the place of manufacture be given, they must be the true name and the true place. It would appear, therefore, that the use of a fictitious name in such a manner that it would be understood to be the name of the manufacturer would be clearly a violation of Regulation 18. It is apparent that the provisions of Regulation 18 will not be fulfilled by the nominal incorporation of a fictitious firm. The regulations require that goods must be actually manufactured by the firm represented on the label as the manufacturer.

When a proper name, other than that of the manufacturer, is placed upon a label it must not be used in the possessive. For instance,

Charles Gaston's
Olive Oil
Bordeaux

can only be properly used on an oil manufactured by Charles Gaston at Bordeaux. The same is true if the designation

Gaston's
Olive Oil
Bordeaux

be employed.

On the other hand, the word "Gaston" might be used in an adjective sense, and not in the possessive case as qualifying the words "olive oil," in a manner that would indicate that it represented a brand and not a manufacture, as

Gaston Olive Oil.

Or,

Olive Oil, Gaston Brand.

In such case, however, neither given name nor initials should be employed. The word

"Gaston" should be in the same type as "olive oil" and in equal prominence, thus forming a part of the label.

The phrase, "Olive Oil, Charles Gaston Brand," may be used, in which case the name of the actual manufacturer should appear, in order that no false indication of the name of the person or firm manufacturing the product may be given.

JAMES WILSON,
Secretary of Agriculture.
Washington, D. C., February 21, 1907.

(F. I. D. 47.)

FLAVORING EXTRACTS.

The percentage of alcohol is not required to be stated in the case of extracts sold for the preparation of foods only. It is held, however, that extracts which are sold or used for any medicinal purpose whatever should have the percentage of alcohol stated on the label.

Numerous inquiries are received regarding the proper designation of products made in imitation of flavoring extracts or in imitation of flavors. Such products include "imitation vanilla flavor," which is made from such products as tonka extract, coumarin, and vanillin, with or without vanilla extract. They may also include numerous preparations made from synthetic fruit ethers intended to imitate strawberry, banana, pineapple, etc. Such products should not be so designated as to convey the impression that they have any relation to the flavor prepared from the fruit. Even when it is not practicable to prepare the flavor directly from the fruit, "imitation" is a better term than "artificial."

These imitation products should not be designated by terms which indicate in any way by similarity of name that they are prepared from a natural fruit or from a standard flavor. The term "venallos," for instance, would not be a proper descriptive name for a preparation intended to imitate vanilla extract. Such products should either be designated by their true names, such as "vanilla and vanillin flavor," "vanillin and coumarin flavor," or by such terms as "imitation vanilla flavor" or "vanilla substitute."

Articles in the preparation of which such substitutes are employed should not be labeled as if they were prepared from standard flavors or from the fruits themselves. For instance, ice cream flavor with imitation strawberry flavor should not be designated as "strawberry ice cream." If sold as strawberry ice cream without a label the product would appear to be in violation of Regulation 22.

Artificial colors should be declared whenever present.

JAMES WILSON,
Secretary of Agriculture.
Washington, D. C., December 13, 1906.

Envoy.

She's the debonair creation of the higher education—

She's a harmless comic supplement unto the college man—

And he finds her passing handy—for a dance she's just the candy—

Though she takes herself too serious no other person can.

She's the Rah-Rah-College Woman—
she's an automatic joke.

With a sweater and a pencil and a book—

She has piped the men completely and she imitates them sweetly

With the regulation college co-ed look.

(The Pelican—U. C. Josh Magazine.)

C. D. Fairbanks Hurt by Acid

In replacing a bottle filled with nitric acid on the shelf in the store of Crane & Fairbanks at Santa Barbara the other day, C. D. Fairbanks allowed the bottle to slip from his hand. To save it from breaking over him, he gave it a push, and it struck a bottle of hydrochloric acid, and the impact broke them both. The hastily manufactured Aqua Regia splashed over Mr. Fairbanks' leg and arm. Instantly he rushed for the ammonia bottle, which neutralized the acid, but unfortunately did some damage on its own account. However, the last report was that Mr. Fairbanks' injuries were not so serious as they were at first believed to be, and it is expected that he will be all right again in a few days.

WASHINGTON STATE PHARMACEUTICAL ASSOCIATION

The W. S. P. A. will meet on July 18, 19, and 20, at Moclips-by-the-Sea. A most enjoyable time is promised, with some good practical papers sandwiched in between the entertainments from day to day. Everybody go!

Turpentine Distillery

It is reported that the Diamond Match Company, who own large tracts of coniferous timber land, will shortly erect a plant at Sterling City for the extraction of the oil of turpentine from the waste pine wood of their factory. After obtaining the oil, the residue will be converted into paper pulp. This will give employment to a number of workmen and convert waste material into valuable by-product.

N. B.—There are big fortunes to be made out of the wasted materials in this land of plenty. It often happens that the easiest way of getting rich is by finding a use for what another man has thrown away.

OFFICIAL ANTIDOTES ADOPTED BY THE CALIFORNIA STATE BOARD OF PHARMACY, APRIL 24,

1907

Emetics.—When a physician is at hand the most prompt emetic and the one most easily administered is one-tenth grain Apomorphine hypodermically.

Demulcent Drinks.—Flax-seed tea, slippery elm tea, barley water, thin starch water, etc., milk, white of eggs with water.

Acid, Arsenous.—Emetic of mustard, hydrated oxide of iron, a cupful; follow with olive oil or white of eggs, mucilaginous drinks. Laudanum (20 drops) if much pain.

Acid, Carbolic.—Dilute alcohol or whiskey and albuminous substances, milk, white of eggs, etc.

Acid, Hydrocyanic.—Cold water to head and spine. Give stimulants. Inhalation of ammonia. Artificial respiration.

Acid, Muriatic.—Acid, Nitric.—Acid, Nitro-Muriatic. — Acid, Sulphuric.—Give no emetics. Give at once large draughts of water or milk. Soft soap or soap and water, or white of eggs beaten up with water, or give olive oil.

Acid, Oxalic.—Give chalk or whiting (a tablespoonful), or plaster off the wall suspended in water. Emetic of mustard, large draughts of warm water, olive oil, mucilaginous drinks, stimulants (whiskey, etc.). Apply warmth to the extremities.

Aconite, Its Preparations or Derivatives.—Emetic of mustard followed by large draughts of warm water, then strong tea or coffee, or whiskey. Keep patient in horizontal position. Keep up artificial respiration.

Antimony and Its Preparations—(Tartar Emetic).—Give emetics of mustard or zinc sulphate. Milk, white

of eggs freely mixed with water. Demulcent drinks.

Antiseptic Tablets (Corros. Sublim.).—Give white of eggs, flour or starch mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.) if needed afterwards, demulcent drinks.

Arsenic.—Emetic of mustard, hydrated oxide of iron a cupful, follow with olive oil or white of eggs, mucilaginous drinks. Laudanum (20 drops) if much pain.

Belladonna, Its Preparations or Derivatives.—Emetic of mustard followed by large draughts of warm water; then strong tea or coffee. Arouse patient and keep him in motion.

Bromine.—If inhalation: fresh air, inhalation of ammonia. If swallowed: Emetic, starch, followed by magnesia bi-carbonate of soda, white of eggs, milk, flour and water.

Cantharidies.—Avoid oils. Emetics first of all. Demulcents, stimulants. Employ artificial heat externally.

Chloral Hydrate.—Horizontal position, cold water to head and stimulants. Emetic of mustard.

Chloroform.—Horizontal position, cold water to head and stimulants. Emetic of mustard.

Cocculus Indicus.—Emetic of mustard followed by large draughts of warm water. Give powdered charcoal. To relieve spasms let patient inhale pure chloroform or give chloral hydrate (25 grains).

Conium.—Emetic of mustard followed by large draughts of warm water; then strong tea or coffee. Arouse patient and keep him in motion.

Corrosive Sublimate.—Give white of eggs, flour or starch mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.). If needed afterward, demulcent drinks.

Corrosive Sublimate Tablets.—Give white of eggs, flour or starch mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.). If needed afterward, demulcent drinks.

Cotton Root and Its Preparations.—Emetic of mustard followed with large draughts of warm water, strong tea or coffee, stimulants (whiskey, etc.) freely. Keep patient in horizontal position, employ warmth to extremities, artificial respiration.

Cowhage.—Large doses of olive oil.

Creosote.—Emetic of mustard, white of eggs beaten up with water, olive oil, magnesia, stimulants (whiskey, etc.) freely. Keep patient in horizontal position, employ warmth and friction to the extremities.

Croton Oil.—Give white of eggs or flour mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.). If needed, demulcent drinks.

Cyanide Potassium.—Cold water to head and spine. Give stimulants. Inhalation of ammonia. Artificial respiration.

Digitalis, Its Preparations and Derivatives.—Emetics of mustard followed with large draughts of warm water, strong tea or coffee, stimulants (whiskey, etc.) freely. Keep patient in horizontal position, apply warmth to extremities, artificial respiration.

Ether.—Horizontal position, cold water to the head and stimulants. Emetic of mustard.

Formalines, or Solution of Formaldehyde.—Give ammonia in diluted solution with demulcent drinks. Also inhalations of ammonia.

Fowler's Solution.—Emetic of mustard, hydrated oxide of iron, a cupful; follow with olive oil or white of eggs, mucilaginous drinks. Laudanum (20 drops) if much pain.

Gelsemium.—Coffee, brandy, emetic of ipecac.

Hyoscyamus, Its Preparations or Derivatives.—Emetic of mustard, followed by large draughts of warm water; then strong tea or coffee. Arouse patient and keep him in motion.

Indian Hemp.—Emetic of mustard followed by large draughts of warm water; then strong tea or coffee. Arouse patient and keep him in motion.

Iodine and Its Preparations.—Give starch, white of eggs or flour mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.), if needed, demulcent drinks.

Lysol.—Dilute alcohol or whiskey and albuminous substances, milk, white of eggs, etc.

Nitro-Glycerine.—Cold to head. Horizontal position. Give emetics and cathartics. Ergot.

Nux Vomica, Its Preparations or Derivatives.—Emetic of mustard followed by large draughts of warm water. Give powdered charcoal. To relieve spasms let patient inhale pure chloroform or give chloral hydrate (25 grains).

Oil of Bitter Almonds, Essential.—Cold water to head and spine. Give stimulants. Inhale ammonia.

Phosphorus and Its Poisonous Derivatives.—Emetic of mustard or blue vitriol 3 grains, every five minutes until vomiting occurs. A teaspoonful old thick oil of turpentine (avoid other oils), also epsom salts half ounce in tumblerful of water.

Pennyroyal, Oil of.—Give white of eggs or flour mixed with water, emetic of mustard. Give strong tea or coffee, stimulant (whiskey, etc.) if needed, demulcent drinks.

Red Precipitate.—Give white of eggs, flour or starch mixed with water, emetic of mustard. Give strong tea or

coffee, stimulants (whiskey, etc.). If needed afterward, demulcent drinks.

Rue, Oil of.—Give white of eggs or flour mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.); if needed, demulcent drinks.

Savin, Oil of.—Give white of eggs or flour mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.); if needed, demulcent drinks.

Santonine.—Evacuate stomach; use stimulants and emetics.

Strophanthus and Its Preparations.—Give zinc sulphate and mustard as emetics. Also tannic acid. Stimulants (brandy or whiskey). Epsom salts.

Strychnine.—Emetic of mustard followed by large draughts of warm water. Give powdered charcoal. To relieve spasms let patient inhale pure chloroform or give chloral hydrate (25 grains).

Sugar of Lead.—Give Epsom salts (one-half ounce) dissolved in a tumbler of water, emetic of mustard, large draughts warm water, milk, demulcent drinks of flax-seed or slippery elm.

Tansy, Oil of.—Give white of eggs or flour mixed with water, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.); if needed, demulcent drinks.

Tartar Emetic.—Give emetic of mustard or zinc sulphate. Milk, white of eggs freely mixed with water.

Veratrum Viride, Preparations and Derivatives.—Emetic of mustard followed by large draughts of warm water. Then strong tea or coffee, stimulants (whiskey, etc.) freely. Keep patient in horizontal position, apply warmth to the extremities, artificial respiration.

White Precipitate.—Give white of eggs, flour or starch mixed with wa-

ter, emetic of mustard. Give strong tea or coffee, stimulants (whiskey, etc.). If needed afterward, demulcent drinks.

Wood Alcohol.—Give warm water and salt (two teaspoonfuls to a tumblerful) immediately. Repeat at short intervals. Stimulate the respiratory movement, and give strong coffee.

Yellow Jasmine.—Coffee, brandy, emetic of ipecac or mustard.

Zinc Sulphate.—Give white of eggs, flour mixed with water, baking or washing soda, emetic of mustard. Give strong tea or coffee stimulants (whiskey, etc.). If needed, demulcent drinks.

ONE ON THE TOADSTOOL

"Dicky," said the teacher, "What is the meaning of the word 'diadem?'"

"Dunno," answered Dicky.

"A diadem is a distinguishing mark of royalty. Think you can remember that?"

"Yas'm, I guess so."

"Give me a sentence in which 'diadem' is used."

"I can't remember any, ma'am."

"Well, make one yourself."

"I'd druther not."

"Why, Dicky?"

"I don't think it's a nice word."

"But it is. It is a perfectly proper word. I am waiting for that sentence."

"Well then, 'If I eat toadstools I'll diadem sight sooner than if I let them alone.'"

And that is no lie.—**Commercial Traveler.**

Henpecked.—In the cochineal family there is only one male to about 200 females, and when the mother increases her family she has about 1,000 at a time. What show is there for the old man in such a family as that? But then he has wings, which the women of the house have not, so he can fly away if they make home too hot for him.

ADDITIONS AND CORRECTIONS U. S. PHARMACOPŒIA (8th Rev.)
May 1st, 1907.

Since the passage of the National Food and Drugs Act, June 30, 1906, many communications have been received, embodying valuable emendations. The following list of those which have been approved by the Committee may be obtained by a purchaser of the U. S. P. 8th Revision, by sending to P. Blakiston's Son & Co., Philadelphia, a stamped and addressed return envelope.

Page lvii, insert

ADDITIONAL NOTICES.

Products and Preparations Made on a Large Scale.—In the manufacture of products and preparations on the large scale, deviation from the official processes may be necessary, but the products must conform to the official requirements as determined by the tests of the U. S. Pharmacopœia, 8th Revision, and the finished preparation must be identical with those made by the official processes.

Tests for Diluted Acids and Exsiccated Salts.—Where a requirement is made in this Pharmacopœia in the official description, that a diluted acid "shall respond to the reactions and tests" given under the corresponding stronger acid, or where similar language is employed, it is understood that the diluted acid shall be brought to the strength of the stronger acid before testing, or that the quantities used in testing the diluted acid be so adjusted that it will conform to the same standards as those established for the stronger acid. In the description of dried or exsiccated salts, where similar language is employed, it is understood that the exsiccated salt, before testing, shall have the proper allowance made for the water it has lost during the process of exsiccation.

Solubility Tests.—In the solubility tests in this Pharmacopœia, slight mechanical impurities, fragments of filter paper, fibre and minute traces of allowable insoluble impurities, permitted by other tests for the same substance, but which interfere with the transparency of the solution, are not to be construed as vitiating the test for solubility.

Page lxxi, Col. 4, line 19 from bottom, change "0.35" to "0.3" Line 18, change "0.5" to "0.45" Line 11, change "0.55" to "0.45."

Page lxxii, Col. 4, line 26 from bottom, change "1.4" to "1.0" Line 24, change "0.5" to "0.4" Line 21, change "0.5" to "0.4" Line 16, change "1.75" to "1.5" Line 13, change "0.35" to "0.25" Line 9, change "2.0" to "1.75" Line 8, change "8.0" to "7.0" Line 7, change "1.5" to "15" Line 6, after "cent." insert "of the total resin." Tenth line from bottom, change "0.8" to "0.08" (if not already corrected).

Page lxxiii, Col. 4, line 23 from bottom, change "8" to "6" Line 20, change "5" to "2.5" Line 19, change "15" to "10" Line 8, change "0.35" to "0.25" Line 2, change "0.035" to "0.03."

Page lxxiv, Col. 4, line 18 from bottom, change "0.5" to "0.04"

Page lxxv, 11th line from bottom, change "0.25" to "0.4" and "0.125" to "0.2" and 3d line from bottom, change "1 Cc." to "2 Cc." (if not already corrected). Col. 4, line 15 from bottom, change "0.03" to "0.025"

Page 4, line 26, insert "about" before "0.790" and in line 29, change "at 56.5° C. (133.7° F.)" to "from 56° to 57° C. (132.8° to 134.6° F.)"

Page 8, line 10, change "121.4° C. (250.5° F.)" to "from 120° to 122° C. (248° to 251.6° F.)"

Page 9, lines 16, 17, and 18, change to "The aqueous solution of the Acid (1 in 20) should not at once become more than slightly cloudy after the addition of barium chloride T.S. (limit of sulphates); nor immediately more than opalescent by the addition of silver nitrate T.S. with nitric acid (limit of chlorides); it should not be precipitated by ammonium oxalate T.S. (absence of calcium);"

Page 10, omit lines 24, 25 and 26; lines 33, 34 and 35, change to "No. 121), omitting the subsequent addition of ammonia water." Line 31, change "10" to "20"

Page 11, line 4, change "83.7 parts" to "from 83 to 86 parts"

Page 12, lines 23 and 24, change to "Ten Cc. of the Acid should not be rendered more than

slightly cloudy by the addition of 1 Cc. of barium chloride T.S. (limit of sulphuric acid)." Line 28, change "1" to "8.3"

Page 13, lines 14 and 15, replace by "Ten Cc. of the Acid should not be rendered more than slightly cloudy by the addition of 1 Cc. of barium chloride T.S. (limit of sulphuric acid)."

Page 16, lines 3, 4, 5, 6 and 7, replace by "If 10 Cc. of the Acid be neutralized with ammonia water, not more than a slight precipitate should result, and after filtering, the filtrate should not become turbid upon the addition of potassium sulphate T.S. (limit of barium)."

Page 17, line 13, change "10" to "20" Line 31, after "neutralization" insert "at boiling temperature"

Page 19, line 6, change "eighty" to "seventy-eight," and "780" to "778" (if not already corrected) Line 27, change "about 4° C. (39.2° F.)" to "from 9° to 4° C. (48.2° to 39.2° F.)" Line 34, change "the ordinary temperature" to "25° C. (77° F.)"

Page 20, lines 35 and 36, omit "barium chloride T.S. (absence of sulphuric acid), or by" After line 40 add: "If 0.1 Cc. of the Acid be diluted with water to 7 Cc. and 1 Cc. of barium chloride T.S. be added, no cloudiness or precipitate should appear within 30 seconds (limit of sulphuric acid)." Line 42, change "10 Cc. of a cold saturated solution of sodium chloride" to "a cold saturated aqueous solution containing 5 Gm. of sodium chloride."

Page 21, line 9, change "potassium" to "sodium"

Page 23, line 28, change "several minutes" to "four hours"

Page 25, lines 42 and 43, to word "also" change to: "Very soluble in water and alcohol at 25° C. (77° F.), and in boiling water and boiling alcohol;" Line 48, change "0.2" to "0.6"

Page 26, line 30, change "135° C. (275° F.)" to "from 168° to 170° C. (334.4° to 338° F.)" Line 38, change "remain unaffected" to "show but a faint turbidity" and "absence" to "limit" Line 46, change "10" to "20"

Page 28, line 26, change "Hematoxylin" to "Cochineal" Line 36, change "10" to "25" Line 37, change "40" to "25" Line 46, change "hematoxylin" to "cochineal" Line 47, change "violet" to "pink" Lines 47 and 48, omit "the transition stages being as follows: first yellow, then green, finally passing into violet."

Page 31, line 40, change "0.885" to "0.895" Line 41, change "7" to "9" Line 43, change "about 72° C. (161.6° F.)" to "from 72° to 77° C. (161.6° to 170.6° F.)"

Page 32, line 46, change "0.918" to "0.911 to 0.916"

Page 36, lines 25, 26 and 27, change to "Aloin from Curacao Aloes is almost completely soluble in 120 parts of water, 15 parts of alcohol and 55 parts of acetone." Omit lines 28 and 29 to the word "When"

Page 37, line 9, change "0.065" to "0.015" and "65" to "15" and "1" to "1/4" Lines 44 and 45, omit words after "alkali"

Page 38, line 2, change "20" to "150"

Page 39, line 13, after "acid" insert "and 130 Cc. of water" Line 46, change "10" to "20" and line 50, change "20" to "150"

Page 40, line 9, change "25 parts" to "28 parts"

Page 41, line 3, change "100" to "150"

Page 42, line 11, change "2" to "3" and "50" to "80" Line 13, omit "completely" Line 31, change "more strongly heated, should be volatilized (absence)" to "Ignited should yield not more than 0.0005 Gm. of non-volatile residue (limit)" Line 26, change "20" to "150"

Page 43, line 21, change "100" to "150"

Page 45, lines 20 and 21, omit sentence beginning "It boils"

Page 47, line 7, after "(230° F.)" insert "in a vacuum" Line 32, change "Two Gm." to "If 0.1 Gm." and "when" to "be" and line 33 before "should" insert "the solution"

Page 49, lines 4 and 5, omit "and melts at 263° C. (507° F.)"

Page 51, lines 3, 4, 5, 6, 7, change to "If 0.1 Cc. of tenth-normal potassium permanganate V.S. be added to 10 Cc. of ammonia water, which has been slightly supersaturated with diluted sulphuric acid, the pink color should not be completely destroyed within ten minutes (limit of really oxidizable substances)."

Omit lines 8, 9 and 10, to the word "When" Lines 16 and 17, replace "be completely volatilized, leaving no residue on subsequent ignition" by "afford a colorless residue which, on ignition, should be completely volatilized" (if this correction has not been made).

Page 54, line 25, change "0.075" to "0.050"

Page 56, line 1, omit "to" and "1 Cc. of ammonia water be added and the mixture"

Page 58, lines 17 and 18, change "no residue should be left (absence of foreign salts)" to "not more than 0.1 per cent. of residue should remain (limit of foreign salts)."

Page 59, line 43, omit "and completely" and line 44, omit "or chloride." After line 44 insert "If 0.2 Gm. of the Oxide be dissolved in a mixture of 1 Cc. of nitric acid and 2 Cc. of distilled water, 10 Cc. of ammonia water added, and the liquid diluted to 60 Cc., then 10 Cc. of this solution should not immediately become cloudy upon the addition of 1 Cc. of nitric acid (limit of chloride)."

Page 60, line 38, change "has a yellow color, is neutral to litmus paper" to "should be colorless to yellow"

Page 62, line 18, change "10" to "15"

Page 63, omit lines 9, 10, 11 and 12 to "The" Line 12, change "The" to "Atropine"

Page 66, line 39, change "0.35" to "0.3"

Page 67, line 10, change "Hematoxylin" to "Cochineal" Line 37, change "hematoxylin" to "cochineal" Line 48, change "0.5" to "0.45"

Page 68, line 47, change "phenolphthalein" to "rosolic acid"

Page 69, line 4, change "phenolphthalein" to "rosolic acid"

Page 72, line 28, change "58" to "56" and line 29, change "60" to "58" Lines 41 and 42, omit "and permanent in the air"

Page 73, lines 6, 7, 8 and 9, replace by "If 0.01 Gm. of the salt be mixed with 1 Cc. of water, 5 Cc. of sulphuric acid added, the mixture cooled and then 5 Cc. of ferrous sulphate T.S. carefully poured over it, without mixing, no red or brown zone should appear within 5 minutes (limit of nitrate)." Line 23, change "0.58" to "0.56" and "0.6" to "0.58" Line 27, change "48" to "46 per cent. nor more than 50."

Page 74, lines 4, 5, 6, and 7, replace by "If 0.01 Gm. of the salt be dissolved in 1 Cc. of water, 5 Cc. of sulphuric acid added, the mixture cooled and then 5 Cc. of ferrous sulphate T.S. carefully poured over it, without mixing, no red or brown zone should appear within 5 minutes (limit of nitrate)." Line 20, change "0.48" to "0.46 Gm., nor more than 0.50"

Page 75, line 34, after "acid" insert "and" Change "added, and this mixture" to "the mixture filtered, and the filtrate"

Page 76, line 34, change "64" to "66"

Page 77, line 5, change "five minutes" to "one minute" and line 6 change "absence" to "limit" Line 14, change "0.2" to "0.05" and "0.3" to "0.1" Line 25, change "0.64" to "0.66" Line 47, change "a" after "produce" to "more than a slight" Line 48, change "absence" to "limit"

Page 78, line 13, change "2.990 to 3.000 at 15° C. (59° F.)" to "about 3.016 at 25° C. (77° F.)" and after "Boiling point," insert "about"

Page 79, line 13, insert before "Its" "When dried at 100° C. (212° F.), to constant weight,"

Page 81, lines 2 and 3, change to "Very soluble in water and alcohol."

Page 82, line 2, change "absence" to "limit" and line 33, change "absence" to "limit" Line 36, change "a trace" to "0.1 per cent."

Page 83, lines 12, 13 and 14, change to "The aqueous solution (1 in 20) yields with ammonium oxalate T.S. a white precipitate, insoluble in acetic acid, but soluble in hydrochloric acid. One Gm. of the salt dissolved in 20 Cc. of water, should not require the addition of more than 1 Cc. of tenth-normal potassium hydroxide V.S. to produce a pink color (phenolphthalein being used as indicator)."

Page 84, lines 15 and 16, change "Two Gm. of Calcium Phosphate" to "Five Cc. of a solution (1 in 10) of Calcium Phosphate, in diluted hydrochloric acid"

Page 86, line 30, change "60" to "55"

Page 87, line 8, change "2.08" to "1.9" Line 12, change "60" to "55"

Page 96, line 18, change "0.938" to "0.935" and line 19, change "45" to "42" and "113" to "107.6"

Page 98, line 39, after "Chloral" insert "(1 in 20)" Line 42, before "acidulated" insert "slightly" Omit lines 45, 46, 47, 48, 49.

Page 99, line 5, change "glass-stoppered" to "well-stoppered" Line 24, change "twenty" to "five"

Page 102, line 8, change "200" to "400" Line 9, change "125" to "250" change "25" to "50" Line 16, change "100" to "200"

Page 104, line 43, before "solidify" insert "partially"

Page 105, line 11, change "phenolphthalein" to "rosolic acid" Line 17, change "phenolphthalein" to "rosolic acid"

Page 106, line 39, change "Hematoxylin" to "Cochineal"

Page 107, line 16, change "hematoxylin" to "cochineal"

Page 109, line 10, change "88" to "120" Line 48, before "crystallization" insert "water of"

Page 110, line 40, change to "Its aqueous solution (1 in 20) is neutral or faintly acid to litmus paper."

Page 112, line 9, change "0.55" to "0.45"

Page 113, line 18, change "nitric" to "hydrochloric"

Page 117, line 32, change "2.8" to "3.2" Line 35, change "4 drops" to "1 drop" and "1 Cc." to "3 Cc."

Page 118, line 19, change "1.072" to "1.078" Line 49, and page 119, lines 1 and 2, change to "Two Cc. of Cresote should require not less than 10 Cc., nor more than 18 Cc. of normal sodium hydroxide V.S. to produce a clear, pale yellow liquid, which remains unclouded on diluting with 50 Cc. of water (absence of neutral oils)."

Page 119, line 19, change "1.032" to "from 1.036 to 1.038" and line 23, change to "When distilled, 90 per cent. of the Cresol should boil between 195° and 205° C. (383° and 401° F.)." Omit lines 27, 28 and 29.

Page 120, line 43, after "evaporation" insert "and ignition"

Page 125, line 29, change "Hematoxylin" to "Cochineal"

Page 126, line 8, change "hematoxylin" to "cochineal"

Page 131, line 18, change "0.925" to "from 0.921 to 0.923"

Page 132, line 11, change "1.072 to 1.074" to "from 1.066 to 1.068"

Page 134, line 12, change "Hematoxylin" to "Cochineal" Line 39, change "hematoxylin" to "cochineal"

Page 146, line 32, after "Erlenmeyer flask" insert "add a little more sand to the dish and, by rubbing, remove any adherent extract, which transfer to the flask."

Page 148, line 35, after "directed," insert "The product must be multiplied by 50 instead of 20." (If these words are not already there.)

Page 149, line 8 and line 11, change "1.4" to "1.0"

Page 151, lines 41, 42 and 43, and page 152, lines 1 and 2, change to "If 1.15 Gm. of Saccharated Ferrous Carbonate be dissolved in 10 Cc. of diluted sulphuric acid (1 to 5) and the solution diluted with water to about 100 Cc., it should require not less than 15 Cc. of tenth-normal potassium dichromate V.S. for complete oxidation, potassium ferricyanide T.S. being used as indicator (corresponding to not less than 15 per cent. of ferrous carbonate)."

Page 154, line 38, omit "slightly"

Page 155, line 18, change "neutral" to "acid"

Page 161, line 46, change "2" to "8" Line 47, change "1" to "2"

Page 163, line 33, after "acid" insert "in a test-flask (see page 522)"

Page 164, line 22, change "slowly add" to "add a few drops of starch T.S., followed by" Line 23, before "with" insert "added slowly," and change "last trace of brown color" to "blue or greenish color"

Page 165, line 26, change "Hematoxylin" to "Cochineal" Line 30, change "10" to "25" Line 31, change "40" to "25" Line 40, change "Hematoxylin" to "cochineal" Line 41, change "violet" to "pink" Lines 41 and 42, omit "the transition stages being as follows: first yellow, then green, finally passing into violet."

Page 168, line 16, change "0.5" to "0.4" Line 25, change "Hematoxylin" to "Cochineal" Line 43, change "hematoxylin" to "cochineal"

Page 174, line 48, change "120° C. (248° F.)" to "110° C. (230° F.)"

Page 175, line 36, change "Hematoxylin" to "Cochineal"

Page 176, line 14, change "hematoxylin" to "cochineal" Line 45, change "0.5" to read "0.4"

Page 191, line 39, change "1.75" to "1.5"

Page 192, line 8, change "Hematoxylin" to "Cochineal" Line 11, after "V.S." insert "and 20 Cc. of distilled water" Line 25, change "hematoxylin" to "cochineal" Lines 26 and 27, change "to just cause the yellow color of the solution to turn purple" to "until a pink color is produced"

Page 200, line 17, change "5 Cc." to "8 Cc." (if not already corrected).

Page 208, line 23, change "Diluted alcohol" to "menstruum" Line 27, after "adding" insert "first the remainder of the menstruum and then"

Page 214, line 18, change "0.35" to "0.25"

Page 229, line 36, change "1.140" to "from 1.110 to 1.114" Line 43 before "Turbidity" insert "Permanent"

Page 230, line 1, change "2 Cc. of sodium hydroxide T.S." to "2 Cc. of potassium hydroxide solution (15 per cent.)" Line 2, insert "nearly" before "white mass." Insert "Much" before "Coloration" Line 3, omit "white" Omit lines 6, 7 and 8.

Page 235, line 51, after "evaporation" insert "and gentle ignition"

Page 237, line 29, change "99.5" to "98.5"

Page 238, line 10, change "no appreciable" to "not more than 0.05 per cent. of"

Page 239, lines 31 and 32, change the words after "readily" to "soluble in diluted nitric acid, forming a clear solution, or in hydrochloric acid (1 in 10) with faint opalescence."

Page 242, lines 5, 6 and 7, change to "If 0.1 Gm. of the powder be digested with 20 Cc. of warm diluted hydrochloric acid, the filtrate should not be affected by hydrogen sulphide T.S. (limit of mercuric oxide)."

Page 244, line 33, change "179.7° C. (355.5° F.)" to "from 191° to 192° C. (375.8° to 377.6° F.)"

Page 245, line 1, change "no" to "but a faint yellow" Lines 12, 13 and 14, change to "White prismatic crystals having an acrid, nauseous, and bitter taste; deliquescent on exposure to the air." Line 35, change "no" to "but a faint yellow"

Page 248, line 39, change "0.1" to "0.2"

Page 250, line 25, change "2" to "1.75" Line 47, change "Hematoxylin" to "Cochineal"

Page 251, line 28, change "hematoxylin" to "cochineal" Line 36, change "8" to "7" Lines 36 and 37, change "but not more than 1.5 per cent. of resin" to "of which not more than 15 per cent. should be"

Page 262, line 10, change "about 1.315" to "from 1.280 to 1.290"

Page 265, line 3, change "about 1.432" to "from 1.430 to 1.450" Line 32, change "cool" to "moderately warm" Line 35, change "1.075 to 1.078" to "from 1.075 to 1.081" Lines 54 and 55, change the words after "ignition" to "should leave not more than 0.05 per cent. of residue (limit of fixed impurities)."

Page 266, line 3, change "0.5" to "1." Line 4, change "0.1" to "0.2" Line 18, change "ten" to "thirty"

Page 274, line 38, change "absence" to "limit"

Page 275, line 30, change "absence" to "limit"

Page 276, line 7, change "absence" to "limit" Line 37, change "is neutral" to "(1 in 20) is faintly alkaline" Line 48, insert "other" before "alkalies." Line 53, omit "anhydrous" After "Citrate" insert "dried at 150° C. (302° F.)"

Page 277, line 8, change "absence" to "limit"

Page 278, line 1, change "slightly reddens blue" to "(1 in 20) should be neutral or slightly acid to" Line 32, change "absence" to "limit."

Page 279, line 40, change "0.001" to "0.01"

Page 280, line 7, after "acid" insert "and 130 Cc. of water" and line 50, after "acid" insert "and 100 Cc. of water" Line 40, change "0.005" to "0.04"

Page 281, line 28, change "0.85" to "1.1"

Page 284, line 12, change "neutral" to "acid"

Page 285, line 12, change "20" to "100" and line 14, change "absence" to "limit"

Page 288, line 34, omit "Average dose.—4 Cc. (1 fluidrachm)." (if not already omitted).

Page 289, line 4, omit the words, "Average dose. 4 Cc. (1 fluidrachm)." (if not already omitted).

Page 291, lines 2, 3, 4 and 5, omit "a bulky, white, crystalline precipitate will be produced; then if the test-tube, loosely corked, be allowed to stand in boiling water for about five minutes, with occasional agitation, the precipitate should dissolve and form" Line 6, after "solution" insert "should result"

Page 294, line 5, after "heated" insert "slowly" change "then" to "when heated rapidly it" Line 40, omit "colorless"

Page 296, line 3, omit "and the remaining two at 130° C. (266° F.)"

Page 307, line 49, change "0.985" to "0.988"

Page 308, line 1, after "being" insert "up to"

Page 310, line 13, change "0.905 to 0.915" to "0.900 to 0.910"

Page 311, omit lines 12, 13, 14 and 15.

Page 312, omit line 17.

Page 313, line 13, change "about + 50°" to "not below + 45°"

Page 314, line 19, change "—5° C. (23° F.)" to "—3° C. (26.6° F.)"

Page 316, omit line 5; line 14, change "0.880 to 0.892" to "0.875 to 0.910" Line 28, change "+ 60°" to "+ 58°" Line 35, change "phenolphthalein" to "rosolic acid" Line 41, change "phenolphthalein" to "rosolic acid"

Page 317, line 41, change "8" to "6"

Page 318, line 5, change "—25°" to "—20°"

Page 321, line 45, change "180" to "183"

Page 322, line 4, change "86" to "84" Line 45, change "5" to "2.5" Line 46, change "15" to "10"

Page 325, omit lines 6 and 7.

Page 328, line 25, change "212 to 218" to "203 to 215" and line 31, change "102" to "103" and line 32, change "105" to "109"

Page 329, line 41, change "six" to "sixteen" and omit "or over night"

Page 331, line 9, after "percentage" insert "powdered sugar of milk or acacia" Line 35, after "test-tube" insert "diluted with three times its volume of water," and line 42, change "120" to "200"

Page 332, line 5, change "2" to "4"

Page 333, line 2, change "123° C." to "121° C." and line 3, change "253.4°" to "249.8°"

Page 336, omit lines 14, 15, 16 and 17.

Page 337, line 23, change "40° C. (104° F.)" to "39° C. (102.2° F.)" Lines 24 and 25, change to "Phenol should have a boiling point from 178° to 182° C. (352.4° to 359.6° F.)" Line 33, omit "which is permanent"

Page 351, line 18, omit "0.1 Gm. of " Line 42, change "soluble in" to "miscible with" and omit "of solutions of potassium or sodium hydroxide"

Page 352, lines 31 and 32, change the words after "not" to "upon the addition of ammonia water yield more than a slight precipitate (limit of zinc and iron)." and lines 33 and 34, change "should leave no residue (absence)" to "should not leave more than a slight residue after gentle ignition (limit)"

Page 353, line 46, after "salt" insert "(1 in 10)" and lines 48, 49 and 50, change after "not" to "yield more than a slight precipitate upon the addition of ammonia water (limit of zinc and iron)." and line 52, change "a weighable residue" to "more than a slight residue after gentle ignition"

Page 363, line 19, after "white" insert "or nearly white"

Page 364, between lines 18 and 19, insert "One Gm. of the dried salt, dissolved in about 10 Cc. of water should not require more than 1.5 Cc. of tenth-normal hydrochloric acid V.S. for neutralization (methyl orange T.S. being used as indicator)."

Page 367, lines 11, 12, 13 and 14, change to "If 0.1 Gm. of Potassium Permanganate be dissolved in 100 Cc. of distilled water, to which 1 Cc. of sulphuric acid and 35 Cc. of tenth-normal oxalic acid V.S. have been previously added, then the addition of not more than 3.5 Cc. of tenth-normal potassium permanganate

V.S. should be required to impart a permanent pink tint."

Page 378, lines 16 to 30, change the "Test for Other Cinchona Alkaloids" to read "Dry Quinine Sulphate at 50° C. (122° F.) for two hours. If 1.8 Gm. of this Dry Quinine Sulphate (which should be neutral or slightly alkaline to test paper) be agitated with 20 Cc. of water at 65° C. (149° F.) for half an hour, then allowed to cool to 15° C. (59° F.) and be macerated at this temperature for two hours, with occasional shaking of the test-tube, the liquid filtered through filter paper of 8 to 10 Cm. diameter, then if 5 Cc. of the filtrate be transferred to a test-tube, and gently mixed (without shaking) with 7 Cc. of ammonia water which must be of official strength, have a temperature of 15° C. (59° F.) and be all added at once, a clear liquid should be produced.

If the temperature during the maceration has been 16° C. (60.8° F.) 7.5 Cc. of ammonia water may be added. If 17° C. (62.8° F.), 8 Cc. may be added (limit of allowable foreign cinchona alkaloids)."

Page 379, line 20, change "10" to "15"

Page 381, omit lines 16 and 17. Line 34, change "119° C." to "from 109° to 111° C." and "(246.2° F.)" to "(228.2° to 231.8° F.)"

Page 385, lines 9, 10, 11 and 12, change to "If 1 Gm. of Sugar of Milk be digested for half an hour with 10 Cc. of diluted alcohol, with occasional shaking, and the liquid filtered, the filtrate should remain clear after admixture with an equal volume of absolute alcohol, and this liquid, if evaporated on a water-bath, should leave not more than 0.03 Gm. of residue (absence of cane sugar)." Line 13, change "10" to "20"

Page 397, line 17, change "36.9" to "36.5"

Page 398, line 36, change "20.4" to "17"

Page 402, lines 36 and 37, to the word "and" change to "Dry, white or nearly white flakes, powder, fused masses or translucent or opaque white pencils, odorless"

Page 403, between line 37 and line 38, insert "One Gm. of the dried salt, dissolved in about 10 Cc. of water, should not require more than 1.5 Cc. of tenth-normal hydrochloric acid V.S. for neutralization (methyl-orange T.S. being use as indicator)."

Page 405, line 42, after "white" insert "or nearly white"

Page 407, lines 24 and 25, change to "Not more than a slight turbidity should appear on dissolving 1 Gm. of the salt in 20 Cc. of water (limit of calcium, aluminum, etc.)."

Page 408, line 23, after "and" insert "which after allowance is made for the loss of 60.3 per cent. of water of crystallization,"

Page 410, line 38, change "96" to "94"

Page 411, lines 17 and 18, change "the solution allowed to stand for about an hour, and shaken at frequent intervals, not more than 11.65 Cc. of tenth-" to "and after solution has taken place, not more than 12.45 Cc. of tenth-"

Page 415, line 3, change "the original" to "one-tenth the," and line 4, after "Ether" insert "taken"

Page 421, omit lines 21, 22, 23 and 24.

Page 422, line 5, change "0.35" to "0.25" Line 23, insert after "very deliquescent" "and also occasionally efflorescent"

Page 423, line 21, after "plates" insert "or white granular powder, or crystalline crusts"

Page 426, line 29, change "should not produce more than a faintly pink color" to "may produce a yellow but not a red or reddish color"

Page 427, line 11, change "should not produce more than a faintly yellow color," to "may produce a yellow but not a red or reddish color" Line 43, change "should not produce more than a faintly yellow color" to "may produce a yellow but not a red or reddish color"

Page 428, line 7, change "70" to "60" and line 9, change "insoluble" to "partially soluble"

Page 429, line 3, after "crystals" insert "or crystalline powder"

Page 439, line 37, after "green" insert "or yellowish green" Line 38, change "a neutral" to "an acid"

Page 441, line 24, omit "and fifty"

Page 450, line 30, change "about 0.850" to "from 0.860 to 0.865" Line 33, change "155°

to 165° C. (311° to 329° F.) to "160° to 170° C. (320° to 338° F.)" Line 40, omit "very"

Page 452, line 38, before "45" insert "when dried over sulphuric acid"

Page 453, line 5, change "0.5" to "0.1" and "10" to "20" Line 7, change "(absence of iodides)" to "(limit of halogen salts)"

Page 457, line 4, change "0.035" to "0.03"

Page 464, line 2, change "0.05" to "0.04"

Page 482, line 5, change "0.03" to "0.025"

Page 483, line 1, change "nine" to "eight"

Page 506, line 9, after "white" insert "or nearly white"

Page 507, line 36, after "white" insert "or nearly white"

Page 508, line 25, after "white" insert "or nearly white"

Page 509, line 13, change "99.5" to "99" and line 46, change "5.4" to "5.5" and line 48, change "4" to "4.04" Omit the word "about"

Page 510, line 45, change "15.5" to "13.5"

Page 512, line 25, change "remain clear" to "show but a faint cloudiness" (if not already corrected).

Page 539, line 23, insert after "(1 in 20)" asterisk for the following foot-note: "*The dilution (1 in 20) has been extended, except as stated below, by the Committee of Revision to a total dilution of 1 in 100; for iron the total dilution is extended to 1 in 300. Exception: For chemical substances to be tested for antimony, and arsenic, the dilution has not been extended, but remains at 1 in 20." Line 37, after "viewed" insert "crosswise"

Page 544, after line 15, insert "131a. Rosolic Acid Test Solution. Dissolve 1 Gm. of commercial rosolic acid (chiefly methylaurin, $C_{20}H_{16}O_3$) in 10 Cc. of diluted alcohol, and add enough water to make 100 Cc. Of this solution about 0.5 Cc. is used for 100 Cc. of solution to be titrated. Ammoniacal solutions should be highly diluted when titrated with this indicator. In place of rosolic acid, commercial paeonin (aurin R) may be employed. This indicator gives a yellow color with acids and violet-red with alkalies."

Page 569, Col. 4 (Indicator) 4th line from bottom, change "Hematoxylin" to "Cochineal" and also wherever it occurs in this table.

Page 570, Col. 5, line 14 from bottom, change "0.35" to "0.3" Line 13, change "0.5" to "0.45"

Page 571, Col. 5, line 31 from bottom, change "1.4" to "1.0" Col. 3, line 30, change " $KMnO_4$ " to " $K_2Cr_2O_7$ " and Col. 4, line 30, insert " $K_3Fe(CN)_6$ " Col. 5, line 14, change "0.5" to "0.4" Line 8, change "1.75" to "1.5"

Page 572, Col. 5, line 27 from bottom, change "0.35" to "0.25" Line 23, change "2.0" to "1.75"

Page 573, Col. 5, line 23 from bottom, change "8.0" to "6.0" Line 21, change "5.0" to "2.5" Line 20, change "15.0" to "10.0"

Page 574, Col. 3, line 14 from bottom, change "38.35" to "37.55" Col. 5, line 14, change "96.0" to "94.0" Line 4, change "0.035" to "0.03"

Page 575, Col. 3, line 3 from bottom, change "24.6" to "24.5" Col. 5, line 9, change "0.03" to "0.025" Line 3, change "99.5" to "99.0"

Page 579, line 17, after "solvent" insert asterisk for the following foot-note: "*If extraction is incomplete, the processes must be repeated with additional solvent. The completion of the "shaking out" processes may be tested by evaporating a small portion of the solution, dissolving the residue in acidulated water and adding mercuric potassium iodide T.S., when the absence of turbidity indicates exhaustion. Line 36, after "not" insert "strongly" Line 37, before "hematoxylin" insert "either"

Page 603, above the 19th line from bottom insert "In the alcohol tables the words 'abs. alc.' (absolute alcohol), mean 100 per cent. alcohol, not the official (99 per cent.) absolute alcohol."

Page 605, 9th line from bottom, 1st column, change "official" to "absolute" and 5th column "absolute" to "official"

NOTE.—If between May 1st, 1907, and June 1st, 1907, the Committee of Revision make any further additions or corrections than those printed above, a supplementary list will be prepared, which will be mailed if the purchaser sends to P. Blakiston's Son & Co., Philadelphia, a stamped addressed return envelope.

BOOK NOTICES AND REVIEWS

A Text-Book of Botany and Pharmacognosy. Intended for the use of students of pharmacy, as a reference book for pharmacists, and as a handbook for food and drug analysts. By Henry Kraemer, Ph.B., Ph.D., Professor of Botany and Pharmacognosy, and Director of the Microscopical Laboratory in the Philadelphia College of Pharmacy. Second revised and enlarged edition. With 321 plates, embodying upwards of 1,500 figures. Octavo, 840 pages. Cloth, \$5 net. Philadelphia: J. B. Lippincott Company.

The title of this book would probably not attract one person in a thousand. Yet the first time we looked into it for the purpose of forming an opinion upon its merits as a text-book for students in pharmacy, we found ourselves burning the midnight oil, and only the physical necessity of seeking "tired nature's sweet restorer, balmy sleep," sufficed to draw us away from it. Of course, there is a good deal in this work that is dry to the student who does not really "want to know," as there is in all books on botany and pharmacognosy. But there is so much that is instructive, and it is so clearly presented that the real student will find satisfaction in its use.

About one-half of the work is devoted to botany, and nearly as much to pharmacognosy. After a lucid exposition of the principal groups of plants and the "Outer Morphology of Angiosperms," comes a most interesting chapter on the "Inner Morphology of the Higher Plants." This deals with the cell and its contents, different kinds of cells, the inner structure of organs of plants, and a few pages on plant metabolism. This chapter gives in a somewhat condensed form the mode of development of cells, cell contents, tissues and organs of plants, and accounts for the production of many secretions of great interest to pharmacy, such as starch, gum, inulin, mucilage, sugars, glucosides, alkaloids, coloring matter, tannins, oils, resins, enzymes, etc. So far as it deals with the structure of organs, it is a necessary preparation for the study of drugs in the dried condition.

The second part, Pharmacognosy, will be of value to many who have but little

interest in botany. It deals with crude drugs and powdered drugs and foods. While the treatment of this part of the subject is similar to that of other authors, the portion relating to the constituents of drugs is more explicit and definite. For the use of our students in pharmacy, we wish the author had made more mention of certain inactive, inert, or antagonistic principles, as well as those believed to be the medicinal ones. For instance, in *Nux Vomica* no mention is made of the fatty body which gives trouble in making some preparations. In *Senna*, no mention is made of the gum which interferes with percolating the powdered drug with a watery menstruum, or of the volatile oil and resin which give it most of its nauseating and griping qualities. There are a number of drugs that contain constituents which are more or less of an impediment to the pharmacist, whose attention should be called to their presence in a treatise on pharmacognosy.

In addition to such matter as is to be found in other works on Pharmacognosy, there is all through the second part much valuable information for the use of analysts investigating drug and food adulterations. This will cause this work to be used largely as a reference book by such persons. Professor Kraemer's work in this department is well known to be reliable, and hence his treatise will soon become a recognized authority.

The illustrations and figures (nearly 2,000 in all), chiefly we are told from the author's own drawings and photographs, are beautifully executed and greatly illuminate the text. These will be of much value in the microscopic examination of drugs.

Saunders' Pocket Medical Formulary. By William M. Powell, M. D. Containing 1831 formulas from the best known authorities. With an appendix containing Posologic Tables, Formulas and Doses for Hypodermic Medication, Poisons and their antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetric Table, Diet-lists, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia.

from Drowning, Surgical Remembrancer, Table of Incompatibles, Eruptive Fevers, etc. Eighth Edition, Adapted to the New (1905) Pharmacopeia. 1906. In flexible morocco, with side index, wallet and flap. \$1.75 net. **W. B. Saunders Company, Philadelphia and London.**

This volume is primarily for the medical profession, but it contains much information that might be of interest and value to the pharmacist. It is very carefully prepared and contains a number of excellent formulas selected from leading medical works. There are blank pages upon which additional formulas can be inserted.

It is to be regretted that physicians so often find it necessary to use a book of this kind to facilitate the writing of prescriptions. However, if it is necessary, this little work can be cheerfully recommended. It contains a large number of tables of various kinds that are unquestionably valuable for reference.

The American Pocket Medical Dictionary. Edited by W. A. Newman Dorland, M. D. Fifth revised edition, 32mo, of 574 pages. Philadelphia and London. **W. B. Saunders Company, 1906.** Flexible morocco, gold edges, \$1 net; thumb indexed, \$1.25 net.

This is a neat little volume and carefully prepared, as are all the publications of Saunders & Co. It makes a very desirable ready reference book, containing much information on materia medica, therapeutics and anatomy, of interest to the pharmacist and medical man.

The size makes it very convenient. The definitions are short, but clear and strictly to the point. This makes it the more valuable to the busy pharmacist, who may occasionally find it necessary to refresh his memory upon some technical term.

In addition to the dictionary proper there are a number of tables of materia medica, posology, etc., that will be of value to the pharmacist in his everyday work.

Mr. D. R. Rees, '92, has moved into a very attractive store on Laguna street, near Hayes. Messrs. Rees and Creighton were formerly the owners of the Hayes Valley Pharmacy.

E. M. Fowler, '00, is the manager of one of Lengfeld's stores.

WHOLESALE DRUG HOUSE BURNED OUT

The wholesale drug store of Archer & Schanz, of Portland, Ore., was completely destroyed by fire on the morning of July 1, entailing a loss of \$150,000. The fire is supposed to have originated in spontaneous combustion on the third floor, where it had been smouldering for several hours before it was discovered, and was one of the fiercest and most spectacular that Portland has experienced. It was only by the most valiant work on the part of the fire department that it was confined to the building in which it began.

The firm of Archer & Schanz have had a double baptism of fire, the first being in San Francisco in the general conflagration of April, 1906, when their entire stock of chemicals, surgical instruments, etc., was burnt up. But they showed their pluck by taking steps to resume business at once by seeking temporary quarters before the embers of their second fire were cold. Such enterprise is sure to win. We understand the firm was fully insured.

Some Serial-Numbering Contracts Stand

The Indianapolis injunction does not affect direct contracts secured by serial numbering price-protective manufacturers, when the signatures to the contracts were procured by the manufacturer without the assistance of other manufacturers or jobbers, and retailers acting for others than themselves.

An example of this class of manufacturers is the U. S. Pharmacal Co., of Chicago. This company adopted and put into effect a D. C. S. N. plan of its own before the N. A. R. D. was born.

Drug News

The Ten Hours Drug Law

There has been some friction in carrying out the Ten Hour Drug Clerk Law at Los Angeles. Some of the proprietors object to the strict enforcement of the law if, at the same time, the Drug Clerks' Salary Law (made by the Drug Clerk's Union, not by the Legislature) is to be enforced. Proprietors say if the hours are shortened the pay must also be shortened, and the clerks object. The State Labor Commissioner is charged with the execution of this law. If he should push matters, the employers will have to yield so far as hours of service are concerned, but they stoutly insist that they will reduce salaries in proportion, and this has not yet been made a subject of legislative action.

We suggest a little moderation on both sides. The men who consult their employers' interests usually do the best in the long run, and the employers who treat their employes the best generally get the best service. There are exceptions, of course, but in the main, mutual consideration pays. But it must be mutual. Now let us have peace.

OREGON STATE PHARMACEUTICAL ASSOCIATION

The annual meeting of the O. S. P. A. will be held at Seaside, Oregon, this week (July 9 to 12). An unusually large attendance is expected. The committee of arrangements have done good work and engaged ample accommodations for all who go. Let every one turn out that can. Leave business for a few days and have a good time, while getting and giving "pointers on pharmacy."

Drug Stores Closed by a Strike

We noted last month that the drug stores of Butte, Mont., were all closed by a strike on the part of the clerks for more wages. The stores remained closed for several days for all business except prescriptions and emergency calls, which the proprietors attended to themselves. We have not heard the outcome of the controversy. Clerks (registered) demanded \$125 a month and assistants \$80.

Shorter Hours for Sundays

For seven months, Bowman & Co., who own four drug stores in Oakland and one in Berkeley, have closed their stores on Sundays, except between 9 a. m. and 2 p. m. They claim they have lost little or none of their regular patronage, while they have gained some customers who sympathize with their efforts to give their employes a larger share of the benefits of the rest day provided from time immemorial for the sons of toil.

Bowman & Co. have a very large prescription trade, and also a heavy trade in sundries and "notions." The latter would suffer most by such a move, because one clerk remains in the store during the closed hours to dispense prescriptions. Thousands of persons pass their stores on Sundays during that time, and of these a certain number would drop in and make purchases. This business they have lost. Whether they have made enough in other ways to make it up is doubtful. Perhaps they have, and more too. But this question should not be determined by the items of profit or loss, but by a higher consideration. Is it right? Is it best?

An opinion was rendered today from the office of the Attorney-General of the State of Washington, to W. P. Bonney, of Tacoma, secretary of the Washington State Pharmacy Association, that under the new pure food law, labels must show the proportions of alcohol, morphine, etc., on compounds made upon a physician's prescription and that the new state law requiring a \$25 annual state liquor license applies to a druggist who sells liquors as well as to saloons.

Redding drug stores must pay \$40 a quarter to the city for a license to sell liquor, or else they must quit selling liquors at wholesale or retail. Saloons pay \$40 a quarter for a retail license. The city council have unanimously adopted an ordinance requiring drug stores to take out a license. The druggists declare that they will not take out licenses and they will continue to sell liquors to such customers as ask them for medicinal purposes whether they have a physician's prescription or not.

It has been discovered by the chief of police of Bellingham, Wash., that unless druggists sell whiskey by the glass to the trade that they cannot be compelled to pay a retail liquor license to the city. In other words the druggists may sell in any sized bottles they want to and escape any penalty. Anxious to execute the law and do the bidding of the mayor that all drug stores selling liquor shall be compelled to pay a license to the city or be arrested, Chief of Police Thomas recently sought to purchase drinks of whiskey from certain druggists, but they refused. The chief has carefully read the license which the State gives the graduate druggist to sell drugs and he finds therein that they can, by the privileges it affords, sell liquor in packages, and if the purchaser signs a statement that it is for medicinal purposes the druggist is clearly within the law. Only when they sell liquor by the glass without a license can they be arrested.

IDAHO BOARD OF PHARMACY

This board meets twice a year. The next meeting will be held at Coeur d'Alene City on July 15, 1907.

W. M. Crilly, well known all over the State, has taken charge of the Rossville drug store.

The new Prosser-Young drug store, which was recently opened in Alameda, is evidently taking that enterprising town by surprise, and there is good reason for it, as a more inviting drug store would be hard to find. The entire interior of the store is finished in Flemish oak, the outside walls, beamed ceiling, mezzanine floor, upper railings and other portions of the fancy woodwork are all finished in a dainty green. The new store is in charge of Mr. E. McKinlay, who for five years was in charge of one of the Osgood stores in Oakland, and his assistant is B. D. Brown, formerly with Off & Vaughan Drug Co., of Los Angeles.

Mr. William McKay Stewart, of the Saint Rose Drug Store, Santa Rosa, is going to have one of the prettiest stores north of San Francisco. He is making a great many changes with that end in view.

Mr. Skillman, of San Fernando, generally called "Doctor," is making a number of improvements in his store; another evidence of prosperity.

Grunsfelds Bros., of Albuquerque, New Mexico, have sold their drug departments to Gross-Kelly Co., who will make considerable improvements and additions to the already large establishment.

Mr. John P. Stiegel, from Waterloo, Iowa, has decided to locate in Phoenix, Arizona, and has accepted a position with the Bear Drug Store.

The Viole-McLain Drug Company, of Los Angeles, was recently incorporated with a capital stock of \$75,000, by Geo. H. McLain, Jules Viole, and John Lopizich.

The Bergman Chemical Co. was recently incorporated with a capital stock of \$10,000.

The Arrowhead Drug Company has just been incorporated by T. J. Davis, C. E. Thurston, E. F. Munsey, R. C. Conant, and J. F. Phillips, with a capital stock of \$25,000.

Mr. Gratz Barnes, of Cole & Barnes, Highlands, was married to Miss Caroline Thompson, of that city.

The Gerard & McCormack Drug Company are refitting and enlarging their store at 1418 Market Street, and when completed will have one of the most attractive stores in the city. With Tom Logie to look after the wants of the trade, success is assured them.

F. S. Malone, of San Rafael, is spreading out. He has just purchased Dr. Crow's drug store at San Anselmo, and intends to enlarge it. Good luck.

The Sun Drug Company, of Los Angeles, secured the contract to furnish the County Farm and Detention Home with drugs.

Scofield & Turley have purchased the stock of W. S. Nicoll, of Bend, Oregon, and will continue in the old location.

Without doubt the handsomest and costliest drug store in the State is being fitted up by the Moore Drug Company at the corner of Sacramento and Kearny Streets, this city, a complete description of which will appear in our August issue. Mr. F. W. Moore was formerly located in Eureka.

S. F. Dignan, formerly with his father in Sacramento, is now with Edwin Val Schmidt.

From all reports, Tucson, Arizona, can boast of as fine a lot of drug stores as there are in the entire West. Special mention must be made of the drug stores owned by Mr. Fred Fleishman, Mr. E. Bell, and Mr. Geo. Martin. It is hard to determine which is the most complete, as there is a good-natured rivalry existing among them down there to outdo one another.

Dunn & Loomis, the Clifton, Arizona, druggists, are doing an enormous business, so much so that they have had to increase the size of their store, and are putting in some very handsome fixtures, in addition to a beautiful soda fountain.

Captain Bernard Ruppe, the president of the New Mexico Board of Pharmacy, presided at the recent session of the Board of Pharmacy, which was held at Roswell, New Mexico, at which time thirteen applicants passed the examinations.

B. K. Bowerman, now located at the corner of Devisadero and Turk Streets, is up against it. His business is increasing so rapidly that he can't find room to accommodate it; he can't build, up, he can't build on either side, neither can he build in front, so he is now figuring on building a tunnel in the side of the hill containing 24,683½ feet, marble lined, electric lighted, steam heated, compressed air pump to furnish air (no, not hot) and a lot of other fixings. And then he woke up.

F. A. Hunter, formerly of Alameda, is now farming near Redwin, Mendocino County, and he is making a huge success of it. First thing we know he will be raising medicinal plants and becoming a bloated millionaire.

J. H. Williams, formerly of the Preston School of Industry of Ione, has bought out E. G. Ennick of that place and is making a number of improvements in the store.

The little town of Concord can boast of as modern a drug store as can be found in any large city, and is managed by Mr. O. D. Clough, formerly of Black Diamond.

Alameda is certainly coming to the front in the drug store line. It will be very hard to find so many strictly first-class and up-to-date drug stores in any town of its size in the United States. The latest addition is the store opened by George M. Sutherland, which speaks well for his enterprise and artistic taste. "Success comes to those that strive for it."

Miss Laura A. McCord is chief clerk at P. Flato's, Alameda. No wonder Flato's business is increasing!

Chaulmoogra Compound is compounding the interest of Neideker. He reports doing a big business with it, receiving orders even from Montana. Well, he deserves it.

A. J. Fouch, class of '02, is doing a big business at Maxwell. He has just completed one of the daintiest of homes, and is now moving in. Success to you, A. J.

Miss M. B. Nolan, secretary of the Women's Pharmaceutical Association, is now manager of La Stella Di Italia.

A fire, caused by the ignition of some asthma remedy which was being dried, broke out in the basement of Bowman & Co.'s new store on Broadway, Oakland, on July 1, threatening to do serious damage; but by the immediate use of a couple of chemical fire extinguishers the fire was extinguished before the fire department arrived.

Mr. Frank Zerr, formerly with Sale & Son, Los Angeles, has purchased the Glendale Pharmacy of W. A. Morton at Glendale, Cal. Mr. Zerr will carry as complete a line of drugs and medicines as can be found in Los Angeles.

The Hornung Drug Company recently opened their new store in Marysville, and it's a dandy, one of the prettiest in Northern California. The firm is to be commended for their enterprise.

Claude Moomau, of Santa Ana, has accepted a position with a San Francisco firm.

Val Schmidt, the veteran druggist of this city, is going back to the old stand in the burned district. There's grit for you—but it is of such stuff the old pioneers are made.

It will pay one to take a trip up to Point Richmond to see Ferguson's new store and soda fountain. They are both "peaches," and will, no doubt, draw well. E. M. is doing the main stunts there.

Charles E. Neidecker, formerly of Darrough & Co., of Redding, has bought an interest in the Laing Drug Company, Richmond. That ought to make a great combination.

Charles J. Stover bought out the Schoen Drug Store in Richmond, and contemplates making improvements which will make it one of the most attractive stores north of San Francisco. Keep your eyes on Chas. J.

Dr. Charles R. Blake is doing a splendid business in his drug store in Atchison. The doctor is celebrated in that part of the State for his courtesy. The big business he is doing is the result.

T. S. Malone and the Wolff Drug Co., of San Rafael, and the Ing-Allee Drug Co., of Sacramento, were awarded the contract to supply San Quentin.

J. E. Sangster, the prosperous Oroville druggist, is contemplating enlarging his store. Glad to hear it and hope he will continue to expand, commercially.

Geo. H. Lichthardt, who has made a specialty of analytical chemistry ever since his graduation ten years ago, will receive the appointment of county chemist of Sacramento county July 1. He is well qualified to fill the position.

The actual work on Philip's new drug store, in Elmhurst, is now under way and when completed will be the swellest store in the county. Philip & Philip expect to have the building ready in a few weeks.

The Economic Drug Co. have opened the finest drug store in Nevada at Yerington. In addition to a full line of fresh drugs they will carry candies, cigars, stationery and toilet articles. Dr. F. E. Carpenter will have his office in the drug store. We wish them the success they deserve.

The South Pasadena Pharmacy is fairly installed in its new quarters by Stephen H. Lederer, the proprietor. Mr. Lederer is well known in that city, having been engaged in business for several years. Every piece of furniture and every article in the stock of goods has been selected by Mr. Lederer with a view to maintaining the high standard of quality. The interior of the room is finished in genuine Mission style with fittings in perfect harmony. The walls are tinted a soft green and the entire atmosphere breathes of artistic handling and expresses individuality seldom found in a place of business, and not often in the modern home.

J. J. Schnitzer, who has for the past ten years held a responsible position at Heath & Morrison's drug store, Riverside, has purchased a drug store at Newport Beach.

Charles May has taken a position with the Alta Drug Company, and finds time to take a special course from Professor Flint. How is that for enterprise?

John C. Ing, '87, is prominently mentioned as a candidate for mayor of Sacramento at the coming fall election. He ought to make a good mayor if he fills the chair as well as he fills prescriptions.

The Board of Supervisors of San Luis Obispo county have decided to buy drugs in the open market. Sort o' free for all.

Geo. M. Sutherland, of the State Board of Pharmacy, for many years with the Grant Drug Co. and Lengfeld's, in San Francisco, has built for himself a neat store on Sherman street, Alameda.

Horace Nichols, U. C. '87, is night clerk for the Neve Drug Company, of Sacramento.

Mr. D. Ray Terwilliger, who for the past twelve years clerked for J. G. Munson, has purchased Dr. Bussing's drug store at Morgan Hill. Mr. Terwilliger was in San Jose last week when he stated that the business outlook is good.

Eugene Avery, Ing & Allee's junior clerk, is going to enter the College of Pharmacy this term. He is a strong "anti-frat" man.

Chester Gallup, a former drug clerk, has quit the pill business and is now working for Wells, Fargo & Co.

Another drug store is about to open in San Jose. It will be located on Second street, next door to the Jose Theatre. The firm name is Perrin & Kibbe.

A. L. Scholl, M. D., Ph. G., formerly of the Fifth and Mission street drug store, San Francisco, is paying his brother an extended visit at Los Gatos.

C. M. Moore, proprietor of the Swan Pharmacy, San Francisco, spent a few days in San Jose and vicinity last week.

W. J. McNeil, of Rhyolite, Nev., has sold his interest in the McNeil drug store to his partner, G. W. Peterson, who will continue at the old stand, corner of Golden and Colorado streets. Mr. McNeil left Sunday for Los Angeles.

C. C. Rubel, of Marysville, has been awarded the contract to supply the county with drugs.

J. W. Haney, of Half Way, Ore., has decided to install an up-to-date pharmacy in Freewater, Ore. Mr. Haney today purchased of R. W. Vanci the building now occupied by the "Freewater Times" for \$1000, where he will place a new and up-to-date stock of drugs and chemicals within a few days.

William Giddings, the prominent druggist of Ogden Utah, is touring California.

The following have been licensed as pharmacists by the New Mexico Board of Pharmacy, after examinations administered during the recent session of the body in Roswell: Warren R. Cobean, Roswell; C. E. Branstetter, Hagerman; H. L. Hardy, Carlsbad; P. D. Reynolds, La Dande; J. Dieienbach, San Antonio; F. A. Butt, Clayton; R. R. Edwards, Portales; M. R. Kirkley, Roswell; J. F. Richardson, Artesia; C. L. Shelton, Tucumcari; A. J. Rolland, Carriazo; P. Wahrly, Blacktower; O. M. Owensby, Texico.

Henri Plaus (of Paris), formerly with Lengfeld's, is with Yardley, at Sacramento.

Edgar Bridgewater is rolling pills for Willis & Martin Company, Sacramento.

Jay W. Swain, who has resided in Long Beach for the past two years, left yesterday for Goldfield, Nevada, where he has a position with a drug company. Mr. Swain has been with the Dickenson & Warson Drug Company of that city for some time and is popular with a large circle of friends.

John F. Allen, the druggist, of Corvallis, Ore., will hereafter dispense coin instead of pills, having accepted a position as cashier of the new bank in that town. Mr. Victor Spencer will hereafter fill prescriptions for the physically ill, while Mr. Allen fills the prescriptions for those ailing financially.

A. Zabaldano & Co. are fitting up their new store, northwest corner of Stockton and Pacific Streets, and when completed will have the handsomest store in the North Beach district.

Garaldi & Oliva will shortly open their new store on Montgomery Avenue.

The Adams-Johnson Drug Company, organized with a capital stock of \$20,000, has purchased the drug business of Heath & Morrison, of Riverside, which has been established for nearly a score of years and is one of the oldest business firms in that town. The purchasers, J. E. Johnson and Earl B. Adams are well and favorably reckoned among the young business men of the city. Mr. Johnson has been located there for six years. He knows everybody and has established an enviable reputation in business and social circles. Mr. Adams was in the San Francisco fire. He and his wife went to Los Angeles and thence to Riverside. During his comparatively brief stay there he has made hosts of friends and has become locally famous by reason of the novelty of his window decorations.

R. E. Miller, manager of the Owl Drug Company is in Los Angeles for a few days, a guest at the Van Nuys Hotel.

Mont Chubb, a well-known druggist who formerly lived in Orange, was married in Redlands Wednesday to Miss Stella Fox, a popular young lady of that city. Mont is conducting a drug store in Redlands and we suppose will now be called Chubby without the "C."

Strict regulations are provided for Washington druggists under the food law passed by the 1907 legislature, as interpreted by the Attorney-General. In response to an inquiry from W. P. Bonney, secretary of the Washington State Pharmaceutical Association, the ruling is made that medicines prepared from a physician's prescription, as well as other preparations, must carry on the label a statement of the proportion of "alcohol, morphine, opium, cocaine, heroin, alpha or beta cocaine, chloroform, cannabis indica, chloral hydrate or acetanilide or any derivative of any such substance contained therein." The Attorney-General also holds that druggists holding a government license for the sale of liquor must also take out a State license, in order to comply with the act of 1907.

J. H. Poage, from Los Angeles, has been secured by Dr. Billings, of Rialto, to take charge of his store. Miss Poage will assist her brother, the management being in their hands.

H. C. LaBrier, a graduate of the St. Louis College of Pharmacy, has resigned his position with the Rowley Drug Company at Santa Ana and accepted one with Geo. T. Mallery, the proprietor of the Central Drug Company, San Bernardino.

Mr. W. O. Morton, the druggist of Glendale, has sold out his business to Mr. Zerr. Mr. Morton does not intend to leave Glendale, however, at least not at present, as he thinks too well of that city to tear himself away needlessly.

D. K. Parker, a druggist of Seattle, was fined \$100 recently for having sold twenty-five cents worth of whiskey to Policeman William Steen on Sunday. The officer testified that he had tried four or five drug stores before he entered the pharmacy where Parker is employed. He said that he had to talk to Parker for some time before he could get him to sell the flask, Parker explaining that he had to be careful as they were not allowed to sell the whiskey without a prescription. Some men are punished unjustly.

The Home Drug Store, corner of Griffin and East Main streets, Los Angeles, is continuing its good run on prescriptions. One East side drug store has a placard in its window, with several strings of prescriptions, each about the size of a stovepipe, claiming 20,000 filled in three years. Not bad for East Los Angeles.

Keeping pace with the enterprise made by the Druggists of Alameda County, R. D. Fuller, of Berkeley, will have the front of his drug store made over. The entrance will be moved from the middle of the front to the corner, so that it will open from both streets. Large plate glass windows will cover the space now covered by the front door. The interior will also be improved by addition of new fixtures and new lamps, and the Dwight Way Pharmacy will become more metropolitan. It's hard to keep a good man down.

Bert Elliott, who has been in the employ of the Stafrin Drug Co., of Dallas, Ore., for two years, has been employed by M. L. Thompson, of Falls City, Ore. Mr. Thompson is fortunate to secure the services of one whose pleasing manner and ability as a drug clerk will please his many patrons.

GOOD business chance in Los Angeles, Cal.—Old established drug store in heart of city, on Broadway; long lease; reasonable rental; a bargain at \$15,000; time on part; answer quick. J. J. H. YOUNG, 1269 East Adams street, Los Angeles.

FINE drug business for sale in Sonoma county; owner leaving; you can get this cheap. See FARNWORTH & HARTFORD, 3108 Putnam ave., Fruitvale, Cal.



*We furnish the Paper
used in this Publication*

FOR SALE—Well established Drug Store, located within one block of the business center in Salt Lake City, three of the principal Theatres located within half block.

Annual Sales, \$12,000.00. Rent, \$100.00 per month.
Stock and Fixtures invoice, \$5,500.00

For particulars address SMITH DRUG CO., Salt Lake City, Utah

FOR SALE OR EXCHANGE—Corner Drug Store, the only one in good valley town.

Clean Stock and Fixtures, with Fountain;
Paying Place; Cheap Rent, or will sell building.

G. W. TURNER, 303½ Washington Street, - - PORTLAND

SPECIAL ATTENTION—The right way to buy a drug store

—to sell one—to get a position or help, whether in U. S. or Canada, is to write F. V. KNIEST, R. P., "The Drug Store Man," Omaha, Neb., U. S. A. Established 1904. Strictly reliable expert and confidential service.

WANTED—Position as Manager or Head Clerk by a graduate. Registered in Oregon, Washington and California. References given.

PHARMACIST
3727 25th Street, San Francisco

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

ACETANILID. 1-lb. cart. incl.....lb	36	Muriatic, 6-lb bots.....each	75
Powd., 1-lb. cart. incl.....lb	36	Muriatic, C. P., 6-lb bots.....lb	22
ACID. Acetic No. 8, carboys.....lb	07	Muriatic, C. P., 1-lb bots.....lb	38
1-lb bottles, M. C. W.....lb	20	Nitric, carboys. lb	8
5-lb bottles, " lb	15	Nitric, 7-lb bots.....ea	1 10
Glacial, M. C. W. lb	44	Nitric, C. P., 7-lb bots.....lb	22
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21	Nitric, 1-lb bots. lb	40
Arsenic, Hydrated Pure, Merck's.....oz	14	Nitro-Muriatic lb	40
Arsenous, Lumps, Pure, Merck's.....oz	8	Nitrous, fuming lb	65
Arsenous, Powd., Pure, Merck's.....oz	8	Oxalic. lb	14-16
Benzoic, from Toluol, M.C.W., 1-lb cart.incl lb	60	Oxalic, chem. pure, M. C. W.....lb	30
Benzoic, from Toluol, Merck's.....oz	13	Phosphoric, glacial, Merck's lb	64
Benzoic, True from Benzoin, Merck's....oz	15	Phosphoric, syrupy (85%) lb	55
Benzoic, English, Merck, 1-oz boxes....oz	16	Phosphoric, diluted, M. C. W.....lb	25
Benzoic, English, Merck's.....lb	2 24	Phosphoric, M. C. W., U. S. P., 50%..lb	40
Benzoic, Merck's, 1-oz cartons.....oz	12	Phosphoric, glacial, 1-oz vials.....oz	11
Benzoic, Merck's. lb	55-65	Phosphoric, glacial, 1s, M. C. W.....lb	64
Boracic, crys., M. C. W.....lb	18-20	Picric lb	60-70
Boracic, powd., M. C. W.....lb	18-20	Pyrogallic, Resublimated, Merck's.....oz	27
Boracic, im. powd., C. P., 1-lb cart. incl..lb	28	Pyrogallic, Merck's, 1-lb cans.....lb	2 35
Boracic, Squibb's, 500 gram.....	43	Pyrogallic, Merck's, 1/2-lb cans.....lb	2 45
Boric, H. P., Merck's.....lb	28	Pyrogallic, Merck's, 1/4-lb cans.....lb	2 55
Boric, powd., pure, Merck's.....lb	20	Pyrogallic, Schering's lb	2 50
Boric, Impalp., powd., Merck's.....lb	28	Pyrogallic, Schering's 1/2-lb	2 60
Butyric, 100%, Merck's.....oz	27	Pyrogallic, Schering's 1/4-lb	2 70
Butyric, H. P. lb	2 14	Pyrogallic, Schering's, oz. vials.....oz	28
Cacodylic, Merck's 1/8 oz	4 00	Pyroligneous gal	40
Camphoric, Merck's oz	49	Salicylic, Merck's, 1-lb cartons.....lb	46
Carbolic, Calvert's No. 1.....lb	2 00	Salicylic, from Oil Wintergreen, Merck's.oz	44
Carbolic, Calvert's No. 2.....lb	1 50	Salicylic, Amorph., Merck's lb	46
Carbolic, M. C. W., gilt label.....lb	30	Salicylic, from Wintergreen, Merck's....oz	44
Carbolic, 1-lb tin, M. C. W., 5-lb can,		Succinic, Merck's, oz. bottles.....oz	79
gilt label lb	26	Sulphuric, Aromatic lb	75
Carbolic, M. C. W., 10-lb can, gilt label..lb	25	Sulphuric, carboys lb	2-2 1/4
Carbolic, 1-lb bot.....lb	30	Sulphuric, 9-lb bottles each	1 00
Carbolic, Loose, crys., Merck's.....lb	70	Sulphuric, C. P., 9-lb. bottles.....lb	22
Carbolic, Silver Label, Merck's lb	31	Sulphuric, C. P., 1-lb bottles.....lb	38
Carbolic, Solution, 1-lb. bot.....doz	2 50	Sulphurous, U. S. P., solution.....lb	25
Carbolic, Crude gal	40-50	Tannic. lb	85-90
Chromic, 1-oz vials oz	15	Tannic, H. P., Merck's lb	1 71
Chrysophanic, true, M. C. W., 1-oz vials..oz	50	Tartaric, crystallized lb	39-45
Cinnamic, H. P., Merck's oz	39	Tartaric, powdered lb	39-45
Citric, crys. lb	63-67	Tri-chlor-acetic, Merck's oz	32
Gallic, 1-oz cartons, Merck's oz	11	Valerianic, Merck's oz	20
Gallic lb	70	ACONITINE. Amorphous, Merck's.....dr	1 40
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15	Cryst., Merck's dr	1 40
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34	ADAPES LANAE. B. P. lb	35
Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10	AGARIC. White. lb	45
Hydriodic (Sp. gr. 1.50), Merck's.....oz	42	ALBOLINE. lb	50
Hydriodic (Sp. gr. 1.70), Merck's.....oz	52	5-lbs lb	45
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39	Liquid lb	50
Hydrocyanic, U. S. P., Scheele's.....oz	35	Liquid, 5-lbs lb	45
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30	AGURIN oz	1 70
Hydrofluoric, 1/2s, g. p. bots. incl. " ..lb	1 80	ALBUMEN. Egg. lb	1 45
Hydrofluoric, 1/4s, g. p. bots. incl. " ..lb	2 25	ALCOHOL. Absolute. qt	1 00
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37	94%, 10-gal. case. gal	2 85
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24	94%, 5-gal. case. gal	2 90
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19	Wood, 10-gal. case. gal	75
Lactic, conc., 1-oz vials, M. C. W.....oz	12	Wood, 5-gal. case. gal	75
Lactic, conc., 1s, Merck's.....lb	79	Wood, Columbian Spirits, 5 gal. in case.gal	1 02
Lactic, dilute, 1-oz vials, M. C. W.....oz	8	Wood, Columbian Spirits, barrels.....gal	85
Muriatic, carboys lb	3 1/4		

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Wood, Columbian Spirits, ½ barrels....gal	95	ANNATTO. Roll	lb	60
Cologne Spirits, 5 cents advance over price of Alcohol.		ANODYNE. Hoffman's, 1-lb bottle.....	lb	75
ALDEHYDE. Conct., Merck's	oz	ANTHRASOL	oz	60
ALLSPICE.	lb	ANTIFEBRIN. Merck's	oz	17
Powdered	lb	ANTI-KAMNIA and its combinations.....	oz	1 00
ALMOND MEAL.	lb	10-oz lots for \$9.25; 25-oz for \$22.80		
ALMONDS. Bitter, shelled.	lb	Tablets, Vest Pocket	doz	1 75
Sweet, shelled.	lb	Tablets, Vest Pocket, 1 gross, 5% off.		
ALOIN. 1-oz vials	oz	ANTIMONY. Black, powdered, pure.....	lb	15
ALUM. Ammonio-Ferric, M. C. W.	lb	Black, powdered, commercial	lb	10
Chrome	lb	Chloride, cryst., 1-oz vials.....	oz	22
Burnt	lb	Chloride, sol. (Butter of)	lb	39
Ground	lb	Oxysulphuret (Kermes Mineral)	lb	1 00
Lump.	lb	Potassium Tartrate, powdered	lb	42
Powdered.	lb	Sulphuret, precipitated	lb	92
ALUMINUM. Aceto-Tartrate, M. C. W....	oz	ANTINOSINE	oz	2 10
Bromide, M. C. W.....	oz	ANTIPYRIN. Knorr's	oz	35
Chloride, M. C. W.....	lb	New	oz	25
Chloride, M. C. W.....	oz	APIOL. Fluid Green, Merck's.....	oz	37
Hydrated, pure, M. C. W.....	lb	APOLSYIN. S. & G.	oz	65
Metallic, M. C. W.....	oz	APOMORPHINE. Hydrochlor. A m o r.,		
Sulphate, pure, M. C. W.....	lb	Merck's, ⅛-oz vial	oz	3 50
Sulphate, H. P., Merck's	lb	Mur. cryst.	oz	8 50
ALUMNOL	oz	Muriate, Amorphous, ⅛-oz vials, M.C.W.oz		3 50
AMIDOL. 1-oz. can	oz	ARISTOL	oz	1 80
AMMONIA. Spirits of	lb	ARGOLS. Red	lb	15
Spirits of, aromatic	lb	Red, powdered	lb	20
Aqua, 26 deg., 1-lb. bot.....	lb	ARGYROL	oz	1 50
Aqua, 26 deg., 4-lb bot.....	lb	ARROWROOT. St. Vincent.....	lb	18-20
Aqua, 26 deg., 5 gal. can.....	lb	Taylor's Bermuda, ¼s and ½s.....	lb	35
Aqua, 26 deg., carboy.....	lb	Taylor's Bermuda, bulk	lb	35
Aqua, Washing, 5-gal. can.....	gal	ARSENIC. Bromide, 1-oz vials, M. C. W....	oz	27
AMMONIUM. Acetate, cryst., M. C. W....	oz	Chloride, sol., M. C. W.....	lb	30
Arsenate, 1-oz vials, M. C. W.....	oz	Iodide, 1-oz vials, M. C. W.....	oz	44
Benzoate, 1-oz vials, M. C. W.....	oz	Metallic	lb	45
Benzoate, M. C. W.	lb	Red, powdered	lb	15
Bichromate, 1-oz vials, M. C. W.....	oz	Solution (Donovan's)	lb	40
Bromide, 1-oz vials, M. C. W.....	oz	Solution (Fowler's)	lb	30
Bromide, M. C. W.	lb	Sulphured, red powdered	lb	33
Carbonate.	lb	Sulphured, yellow powdered	lb	33
Carbonate, powdered	lb	White, lump	lb	30
Carbonate, C. P., Squibb's, 1-500 gram....	45	White, powdered, commercial.....	lb	18
Citrate, 1-oz. vials, M. C. W.....	oz	Yellow (orpiment)	lb	35
Hypophosphite, 1-oz vials, M. C. W.....	oz	ASBESTOS. Fibrous, gro.....	lb	20
Hypophosphite, M. C. W.	lb	ASPARAGIN. ⅛-oz vials	oz	1 50
Iodide, 1-oz. vials, M. C. W.....	oz	ASPIRIN	oz	43
Muriate, lump.	lb	ATROPIA. Pure, ⅛-oz vials, Merck's....	oz	6 70
Muriate, gran.	lb	Sulphate, ⅛-oz vials, Merck's	oz	5 65
Muriate, gran., pure, 1-lb cartons.....	lb	BALSAM. Copaiba, 8-lb can.....	lb	1 35
Muriate, powdered, pure.....	lb	Copaiba, 5-lb bottle.	lb	1 40
Muriate, Po.....	lb	Copaiba, 1-lb bottle.....	lb	1 50
Muriate, Po., Squibb's	lb	Copaiba, solidified.	lb	1 50
Nitrate, H. P., Merck's	lb	Fir, Canada.	lb	70-75
Nitrate, cryst., refined	lb	Fir, Oregon.	lb	50-55
Oxalate, H. P., Merck's.....	lb	Gurgun	lb	40
Phosphate	lb	Peru.....	lb	3 00-3 25
Salicylate, Merck's	lb	Sulphur	lb	60
Salicylate, Merck's	oz	Tolu	lb	75
Succinate.....	oz	BARIUM. Acetate, 1-oz vials, M. C. W....	oz	16
Sulphate, com'l	lb	Carbonate, M. C. W.....	lb	37
Sulphate, C. P., Merck's	lb	Carbonate, precip., Merck's	lb	30
Sulpho Cyanate, pure	oz	Chloride, chemically pure, M. C. W.....	lb	38
Valerianate, cryst., 1-oz vials.....	oz	Chloride, H. P., cryst., Merck's.....	lb	38
Valerianate, cryst.	lb	Nitrate, M. C. W.	lb	23
AMMONOL	oz	Nitrate, H. P., cryst., Merck's.....	lb	37
AMYL. Acetate	lb	Sulphide, commercial, Merck's.....	lb	43
Butyrate, M. C. W.	oz	Sulphide, pure, Merck's	lb	53
Nitrite, Merck's	oz	Sulphate, M. C. W.	lb	13
Valerianate, M. C. W.	lb	BARK. Alder, black, pressed, 1-lb.....	lb	22
		Alder, red or tag, pressed, 1-lb.....	lb	24

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Angostura	lb	30	Wild Cherry, ground.	lb	18
Ash, black, pressed, 1-lb.....	lb	20	Wild Cherry, powdered	lb	20
Ash, mountain, pressed, 1-lb.....	lb	24	BAY RUM. Domestic	gal	2 25
Ash, white, pressed, 1-lb.....	lb	25	Imported	gal	3 00
Barberry, pressed, 1-lb.....	lb	30	BEANS. Calabar.	lb	40
Barberry, powdered	lb	35	Tonka, Angostura	lb	1 25
Bayberry, pressed, 1-lb.	lb	25	Vanilla, short, true Mexican.....	lb	8 50
Bayberry, powdered.	lb	30	Vanilla, long, true Mexican.....	lb	9 50
Birch, pressed, 1-lb.....	lb	24	Vanilla, Tahita	lb	1 25-1 50
Black Haw, powdered	lb	35	BEBEERINE. Pure, 1-oz vials	oz	2 04
Black Haw, pressed, 1-lb.....	lb	30	Sulphate, 1-oz vials	oz	1 49
Black Willow, pressed, 1-lb.....	lb	25	BENZOLE. Pure	lb	35
Blackberry.	lb	20	H. P., Merck's	lb	37
Buckhorn, pressed, 1-lb.	lb	22	BENZIN. Gallon		30
Butternut, pressed, 1-lb.	lb	22	5 and 10 gallons	gal	25
Calisaya, yellow, commercial.	lb	30	Pints	doz	1 60
Calisaya, yellow, commercial, powd.....	lb	32	BERBERINE. Hydrochloride, Merck's....	oz	2 29
Calisaya, East India.	lb	42	Sulphate, Merck's	oz	2 29
Calisaya, powdered.	lb	45	BERRIES. Buckthorn	lb	30
Canella	lb	30	Cocculus Indicus	lb	15
Canella, powdered	lb	35	Cubeb, stemless	lb	25
Cascara, Sagrada.	lb	18	Cubeb, powdered	lb	30
Cascara, Sagrada, powdered.	lb	20	Elder	lb	30
Cascarilla	lb	25	Juniper, Italian	lb	10
Cascarilla, powdered	lb	30	Poke	lb	25
Cassia.	lb	22	Prickly Ash.	lb	40
Cassia, powdered	lb	25	Sumac	lb	25
Cinchona, red.	lb	45-50	Sumac, powdered	lb	30
Cinchona, red powdered.	lb	45-50	BETOL	lb	60
Cinnamon, Ceylon.	lb	40 50	BISMUTH. Acetate, M. C. W.	oz	34
Cinnamon, Ceylon, powdered.	lb	40-50	Citrate, M. C. W.	lb	2 64
Cotton Root, powdered.	lb	35	Citrate, M. C. W.	oz	24
Cotton Root, pressed, 1-lb.....	lb	35	Citrate and Ammonia, M. C. W.....	oz	24
Cramp, powdered	lb	25	Citrate and Ammonia, M. C. W.....	lb	2 64
Cramp, pressed, 1-lb.....	lb	19	Lactate	oz	42
Cundurango	lb	45	Metallic	lb	2 25
Cundurango, powdered	lb	50	Nitrate, M. C. W.	oz	23
Dogwood, pressed, 1-lb.....	lb	20	Oxide, Hydrated, M. C. W.....	lb	3 33
Dogwood, powdered	lb	25	Oxide, Hydrated, M. C. W.....	oz	32
Elder, pressed, 1-lb.....	lb	35	Oxychloride, M. C. W.....	lb	2 42
Elm, select, slabs.	lb	30	Salicylate, 40%, Merck's.....	oz	20
Elm, ground, bulk	lb	30	Salicylate, 64% Basic, Merck's.....	oz	22
Elm, powdered	lb	30	Salicylate, 64%, M. C. W.....	lb	2 39
Elm, powdered, 1/4s.....	lb	30	Subbenzoate.	oz	32
Elm, powdered, 1/8s.....	lb	35	Subcarbonate	lb	2 67
Elm, powdered, ozs.....	lb	40	Subgallate, Merck's	oz	26
Hemlock, pressed, 1-lb.	lb	25	Subiodide, M. C. W.	lb	4 59
Hemlock, powdered.	lb	30	Subiodide, 1-oz vials, M. C. W.....	oz	36
Jamaica Dogwood, pressed, 1-lb.....	lb	35	Subnitrate, M. C. W.....	lb	2 42
Jamaica Dogwood, powdered, 1-lb.....	lb	35	Tannic, 1-oz vials, M. C. W.....	oz	25
Mezereon, pressed, 1-lb.....	lb	28	Valerianate, 1/8s.....	oz	60
Oak, red, pressed, 1-lb.....	lb	22	BLUE MASS	lb	60
Oak, white, powdered.	lb	22	Powdered	lb	62
Oak, white, pressed, 1-lb.....	lb	22	BLUE VITROL. Barrels, 10.....	lb	14-16
Poplar, white, powdered, 1-lb.....	lb	20	Powdered	lb	18
Poplar, white, pressed, 1-lb.....	lb	15	BOLE. Armenian	lb	18
Poplar, yellow, pressed, 1-lb.....	lb	18	BONE ASH	lb	6-8
Prickly Ash, powdered	lb	40	BORAX. C. P., Squibb's	lb	33
Prickly Ash, pressed, 1-lb.....	lb	33	Pacific Coast Borax Co., 1-lb.....	doz	1 14
Quebracho	lb	35	Pacific Coast Borax Co., 1/4-lb.....	doz	90
Sassafras.	lb	28	Pacific Coast Borax Co., 1/4-lb.....	doz	48
Sassafras, powdered	lb	25	Powdered	lb	10-12
Simaruba	lb	50	Pure Granular	lb	25
Soap Tree	lb	9-10	Refined	lb	10-12
Soap Tree, ground	lb	16	BOROFORMOL. Pints	doz	7 50
Soap Tree, powdered.	lb	15	BOROGLYCERIDE Solution.	lb	60
Sumac, pressed, 1-lb.....	lb	21	BOROTHYME. 4-oz cans	doz	9 00
Tamarac, pressed, 1-lb.	lb	22	BROMINE	lb	83
Wahoo Root, pressed, 1-lb.....	lb	33	Chloride, solution	oz	60
Wild Cherry.	lb	16	BRUCINE. 1/8-oz vials, M. C. W.....	oz	1 75

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BRUCINE. Merck's	oz	1 75	Turner's	lb	60
Phosphate, Merck's	oz	1 75	Zinc, Carbonate, true	lb	60
Sulphate, Merck's, 1/8-oz vials.....	oz	1 75	Zinc, Oxide	lb	60
BUDS. Balm of Gilead	lb	60	CERIUM. Oxalate, Merck's	oz	09
Cassia	lb	40	Oxalate, 1-lb cartons	lb	47
BUTTER CACAO. Ghirardelli.	lb	60	CHALK. Crayons, white	lb	15
German.	lb	62	French, cut	lb	18-20
CADMIUM. Bromide, M. C. W.....	oz	20	French, powdered	lb	5-8
Iodide, M. C. W., 1-oz vials.....	oz	33	Precipitated, English	lb	10-12
Sulphate, M. C. W., 1-oz vials.....	oz	24	Prepared in drops, bulk	lb	7-8
CAFFEIN. Bromide, 1-oz vials.....	oz	31	Prepared in drops, 5-lb boxes.....	lb	8-10
1/8-oz vials	oz	51	Prepared pink, 8-lb boxes.....	lb	10
Citrated, Merck's	oz	23	White, in lumps	lb	3-4
Pure, Merck's	oz	29	CHARCOAL. Animal	lb	8-10
Sulphate, 1/8-oz vials, Mallinckrodt's.....	oz	55	Willow, powdered	lb	15-20
Salicylate, true salt, 1/8s, Mallinckrodt's..oz	oz	55	CHINA CLAY	lb	10
CALAMINE	lb	18	CHINESE SHAVINGS	lb	60
CALCIUM. Bromide, 1-oz vials, M. C. W..oz	oz	12	CHINOIDINE. 1-oz rolls	oz	12
Bromide, M. C. W.....	lb	64	CHLORAL HYDRATE, CROTON, 1-oz vial		
Chloride, fused, M. C. W.....	lb	64	incl.	oz	35
Chloride, granular, M. C. W.....	lb	30	Crystals, Merck's	lb	1 35
Glycerolphosphate	oz	22	Crystals, Merck's, 1/2s.....	lb	1 45
Hypophosphite, 1-oz vials.	oz	14	Crystals, Merck's, 1/4s.....	lb	1 55
Hypophosphite.	lb	89	Crystals, Merck's, oz.....	lb	2 10
Hypophosphite and Sodium, 1-oz vials....oz	oz	16	Crystals, M. C. W., 1s.....	lb	1 35
Hypophosphite and Sodium, M. C. W..lb	lb	1 09	Crystals, M. C. W., 1/2s.....	lb	1 45
Iodide, 1-oz vials, M. C. W.....	oz	37	Crystals, M. C. W., 1/4-lb cartons.....	lb	1 50
Lactophosphate, soluble	lb	1 35	Crystals, M. C. W., ozs.....	lb	2 10
Lactophosphate, soluble	oz	17	Crystals, 1-lb g. s. b. incl., Schering.....	lb	1 35
Phosphate, precipitated, 1-lb cart.....	lb	20	Crystals, 1/2-lb g. s. b. incl., Schering....	lb	1 45
Phosphide, 1-oz vials	oz	50	Crystals, 1/4-lb g. s. b. incl., Schering....	lb	1 55
Sulphate, pure	lb	49	Crystals, 1-oz g. s. vls. incl., Schering....oz	oz	17
Sulphide, 1-oz vials	oz	10	CHLORALAMID	25 gramme	80
Sulphide	lb	37	CHLOROFORM. 1-lb tin.....	lb	52
Sulphite	lb	84	In 7-lb bottle	lb	42
Sulpho, carbolate, M. C. W.....	oz	11	Squibb's, 1-500 gramme.	lb	90
CALOMEL. Bulk.	lb	1 00	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	oz	25
English, Howard's	lb	1 35	Bisulphate, M. C. W.	oz	18
CAMPHOR. Monobromated, Mal'rodt's...oz	oz	27	Muriate, M. C. W.....	oz	17
Tar flake.	lb	5-7	Sulphate, 1-oz vials, M. C. W.....	oz	17
Tar balls.	lb	5-7	CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	oz	50
CANDY. Coltsfoot Rock	lb	30	Bisulphate, 1-oz vials, M. C. W.....	oz	30
Horehound.	lb	12	Muriate, M. C. W.	oz	32
Rock, on strings	lb	15	Salicylate, 1-oz vials, M. C. W.....	oz	34
Rock, brown	lb	16	Sulphate, 1-oz vials, M. C. W.....	oz	30
Rock, red	lb	15	Sulphate, 5-oz cans, M. C. W.....	oz	25
Rock, white	lb	14	CLOVES. Zanzibar	lb	30
CANTHARIDES. Russian, powdered....	lb	1 50	Zanzibar, powdered	lb	35
Chinese, powdered	lb	1 10	COBALT	lb	25
CAPSICUM. African, pods	lb	25	Cobalt, powdered	lb	30
African, powdered	lb	30	COCAINE. Alk., 1-oz. vials, incl.....oz	oz	3 80
Bombay	lb	20	Hydrochloride, Merck's	oz	3 05
CARAMEL	gal, \$1.25.	30	Hydrochloride Cryst., 1-oz v'ls, M.C.W...oz	oz	3 05
CARBON. Bisulphide	lb	17	Hydrochloride Cryst., 1/2-oz v'ls, M.C.W...oz	oz	3 20
Bisulphide, 50-lb cans.....	can	4 73	Hydrochloride Cryst., 1/4-oz v'ls, M.C.W...oz	oz	3 30
Bisulphide, Wheeler's 50-lb can.....	ea	4 73	Hydrochloride Cryst., 1/8-oz v'ls, M.C.W...oz	oz	3 45
Bisulphide, 1-gal cans.	gal	1 35	COCHINEAL. Honduras.	lb	60
Bisulphide, quart bottles	doz	4 50	Honduras, powdered.	lb	65
Bisulphide, Purif., Merck's.....	lb	49	CODEINE. Merck's Pure.	oz	4 75
CARMINE. No. 40.	oz	40	Muriate	1-oz, \$4.50.....	1/8s 4 70
No. 40.	lb	4 50	Phosphate, 1/8-oz vials.	oz	4 45
CASSIA FISTULA	lb	20	Sulphate, M. C. W.	oz	4 50
CASTOR FIBER.	oz	1 50	COLLODION	lb	90
Castor Fiber, powdered	oz	1 75	1-oz vials	doz	1 25
CERATE. Cantharides	lb	1 00	Cantharidal	lb	2 35
Goulard's, U. S. P.	lb	70	Cantharidal, 1-oz vials	doz	2 20
Resin, U. S. P.	lb	50	Flexible	lb	1 00
Savin	lb	60	Flexible, 1-oz vials	doz	1 50
Simple	lb	50	COLCHICINE. cryst., Merck's, 15-grain...gr	gr	14
Spermaceti	lb	70	C. P., Amorph., 15-grain vials.....	gr	30

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COLOCYNTH. Apples, Trieste.....lb	60-65	ERGOTOLE. S. & D.....doz	4 50
Apples, powdered.....lb	75	ESERINE (Physostigmine), 5 gr Alkaloid, Merck's.....gr	13
COMPOSITION POWDER, 2-oz papers..lb	35	Sulphate, 5-gr vials, Merck's.....ea	50
CONFECTION. Aromatic.....lb	1 00	Sulphate, 10-gr vials, Merck's.....ea	1 00
Opium.....lb	1 50	Sulphate, 15-gr vials, Merck's.....ea	1 50
Rose, U. S. P.....lb	65	ETHER. Acetic, M. C. W., 1-lb bot.....lb	59
Senna, U. S. P.....lb	70	Benzoic, 1-oz bot.....oz	34
Theriac.....lb	1 25	Butyric, 1-lb bot.....lb	1 70
COPPER. Acetate, cryst., C.P., M.C.W.....lb	74	Chloric, U. S. P., M. C. W., 1-lb bot....lb	64
Acetate, com'l, lump.....lb	40	Chloric, concent., M. C. W., 1-lb bot....lb	74
Acetate, Po. Verdigris.....lb	45	Formic, 1-lb bot.....lb	1 59
Ammoniated.....lb	59	Hydrobromic, 1-oz bot.....oz	20
Arsenite, 1-oz vials, M. C. W.....oz	19	Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 20
Arsenite, 1-oz vials.....oz	19	Nitrous, conc., M. C. W., ½-lb bot.....lb	1 10
Bromide.....oz	32	Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00
Iodide, M. C. W.....oz	44	Nitrous Spirit, 4-lb bot.....lb	58
Nitrate.....lb	54	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	81
Sulphate, C. P., granulated, 1-lb. boxes..lb	23	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	78
Sulphate, Caustic Pencils, Merck's.....doz	1 75	Sulphuric, conc., 1-lb can.....lb	87
Sulphate, purified, 1-lb cartons.....lb	21	Sulphuric, conc., 3-lb can.....lb	84
COPPERAS. bbls 1¼.....lb	3-4	Sulphuric, washed, 1-lb bot.....lb	87
CORROSIVE SUBLIMATE.....lb	92	Sulphuric, Squibb's, in 1-500 gm cans....ea	1 35
Powdered.....lb	95	Sulphuric, Squibb's, in 1-250 gm cans....ea	70
COTOIN. Para, Merck's, ⅛-oz.....oz	14 00	Sulphuric, Squibb's, in 1-100 gm cans....ea	33
COTTON. Negative.....oz	60	Valerianic.....oz	44
COWHAGE. 1-oz cans.....oz	55	ETHYL. Bromide, Merck's.....oz	20
CREAM TARTAR, pure, powdered.....lb	34-37	Chloride, 10 gramme tubes Bengue.....doz	5 00
Pure, powdered, 25-lb box.....lb	30	Chloride, 30 gramme tubes Bengue.....doz	10 00
CREOLIN. ½-lb.....doz	4 00	Chloride, Merck's, 10 gramme.....ea	40
1-lb.....doz	8 00	Iodide (see Hydriodic Ether), Merck's..oz	54
CREOSOTE. Beechwood, Merck's.....lb	94	EUCALYPTOL. Merck's.....oz	16
Merck's, ½-lb.....lb	1 10	EUCAINE. A or B, ⅛s.....oz	3 60
Merck's, ¼-lb.....lb	1 20	EUDOXINE.....oz	2 10
CREOSOTE CARBONATE.....oz	65	Tablets, 3-gr.....oz	2 60
In ¼-lb.....lb	9 25	Tablets, 5-gr.....oz	2 50
In ½-lb.....lb	9 15	Tablets, 1-3 gr, ¼-oz bots.....oz	3 00
In 1-lb.....lb	9 10	EUKATROL, powd.....oz	1 00
CROCUS MARTIS.....lb	16	Tablets.....oz	1 00
CUDBEAR.....lb	30	EUROPHEN.....oz	1 80
CUMARIN.....oz	45	EXALGINE.....oz	1 50
CUMENE (Cumol), Merck's.....lb	1 10	EXTRACT. Licorice, Corigliano.....lb	45
CURCUMA. Powdered.....lb	16	Licorice, Mellor & Rittenhouse.....lb	27-30
CUTTLEFISH.....lb	35	Licorice, M. & R., 25 and 50-lb box....lb	26
Jeweler's.....lb	85	Licorice, soft, perf., clearly soluble....lb	75
Powdered.....lb	30	Licorice, Y. & S.....lb	27-30
DATURINE. Alk., cryst., 5-gr, Merck....ea.	75	Licorice, powd.....lb	35
DEXTRIN.....lb	12-15	Logwood, bulk.....lb	14
DIASTASE. of Malt.....oz	1 14	Logwood, ¼s.....lb	20
DIGALEN. ½-oz bottles.....ea	1 00	Logwood, ½s.....lb	18
DIGITALIN. ⅛-oz vials, Merck's.....oz	5 75	Logwood, 1s.....lb	16
DIONIN. ⅛s, Merck's.....oz	6 25	Male Fern, U. S. P., Merck's.....lb	2 25
15-gr vials, Merck's.....ea	35	Malt, dry, Merck's.....lb	1 25
DOVER'S POWDER, U. S. P.....lb	1 50	Opium, Aqueous, dry, Merck's.....oz	1 04
DRAGON'S BLOOD, Mass.....lb	55	Witch Hazel.....gal	1 10
Powdered.....lb	65	Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05
Reed's.....lb	85	Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00
DIURETIN.....oz	1 80	FAREOL.....oz	50
DUBOISINE, Sulphate, Merck's, 10-gr vial..	1 10	FENETOLE.....lb	2 00
EARTH, Fuller's, powdered.....lb	8-10	FERRATIN. Powder or tablets.....oz	85
EIKONOGEN, 1b, \$3.95; ½s, \$4.20.....oz	37	FLAKE WHITE. English.....lb	15
¼s.....lb	4 80	FLOUR. Gluten.....lb	15
ELATERIN, Merck's, 15-gr vial.....	1 25	Rice.....lb	12
ELATERIUM, ⅛-oz vials.....oz	3 00	FLOWERS. Althea.....lb	40
EMERY. Flour.....lb	10-12	Arnica.....lb	18-20
Grain.....lb	10-12	Arnica, powd.....lb	23-25
EMETIN (Resinoid), Merck's.....oz	7 53	Calendula, new.....lb	50
(Alkaloid), pure, Merck's, 15-gr vial.....	1 25	Chamomile, German, new.....lb	30
ERGOT. Spanish.....lb	65	Chamomile, Roman.....lb	45
Spanish, powd.....lb	65	Elder.....lb	25
ERGOTIN. Ergotin-Bonjean, Merck's.....oz	39		

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Elder, pressed. oz	25	Camphor in slabs, 12-lb boxes.....lb	1 49
Kooso. lb	75	Camphor, boxes 24 to lb.....lb	1 52
Kooso, powd. lb	80	Camphor, powd. lb	1 65
Lavender. lb	35	Catechu, refined. lb	18
Mullein.....lb	1 00	Catechu, powd. lb	30
Orange.....lb	1 10	Copal lb	35
Poppy, red. lb	75	Damar. lb	38
Rose, red. lb	1 20	Galbanum. lb	1 00
Rosemary. lb	35	Gamboge.....lb	1 20
FLOUR SPAR. Powdered.....lb	25	Gamboge, powd. lb	1 25
FORMALDEHYDE. Merck's. lb	32	Guaiaac. lb	35
1-lb bot. lb	30	Guaiaac, powd. lb	40
FORMALIN. S. & G. lb	40	Kino, true. lb	75
FORMIN. Merck's. oz	21	Kino, true, powd.....lb	80
GADUOL. Merck's. oz	37	Mastic tears. lb	85
GAMBIER. lb	15	Myrrh, Turkey. lb	35
GARANTOSE. 550 times sweeter than sugar.		Myrrh, Turkey, powd.....lb	40
1-lb cans, Merck's.....lb	2 25	Olibanum tears lb	30
1-oz cans, Merck's.....oz	20	Opium lb	5 50
GELATIN. Cooper's, 12-lb case.....lb	65	Opium, powd. lb	6 50
Coxe's. doz	1 50	Sandarac. lb	45
French Pink. lb	75	Scammony, Aleppo. oz	40
French Gold Label. lb	55	Scammony, Virgin, true.....oz	75
French Silver Label.....lb	40	Shellac, bleached. lb	75
GLASS. Powdered. lb	15	Shellac, orange. lb	70
Soluble. lb	25	Shellac, ground. lb	75
GLUCOSE. 1-lb bot.....lb	20	Spruce.....lb	1 50
GLUE. Common. lb	15	Tamarac, true. lb	1 25
White, No. 1. lb	25	Thus. lb	12
GLUTOL oz	65	Tragacanth, ribbon. lb	90
GLYCERINE. Price's. lb	70	Tragacanth, powd. lb	80
Pure, in 10-lb cans.....lb	19 1/2	GUTTA PERCHA. Crude, shavings.....lb	1 75
Pure, in 50-lb cans.....lb	17	Crude, sheets. lb	1 75
GLYCEROPHOSPHATES. Iron, Merck's..oz	32	HEDONAL. oz	1 60
Lime, Merck's. oz	22	HEMICRANIN oz	90
Potash, Merck's oz	29	HEMOGALLOL. Merck's. oz	80
Soda, Merck's. oz	28	Tablets, Merck's. 100	80
GLYCYRRHIZIN. Ammoniated, Merck's..oz	29	HEROIN. 1-oz. oz	4 85
Ammoniated, Merck's. lb	3 10	1-oz, 1/2-oz vials.....oz	5 00
GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70	1/4-oz. oz	5 15
Chloride, 15-gr vials, M. C. W.....doz	5 10	15-gr vials. ea	23
Mono-bromide, Merck's, 15-gr vials.....ea	1 25	Hydrochloride, oz vials.....oz	4 85
Tri-bromide, Merck's, 15-gr vials.....ea	1 00	1/2-oz. oz	5 00
Tri-cyanide, Merck's, 15-gr vials.....ea	2 00	1/2-oz, 1/4-oz vials.....oz	5 15
GOOSE GREASE. lb	60	15-gr vials. ea	23
GRAINS. Paradise. lb	40	HEXAMINE oz	30
Powdered. lb	45	Tablets. oz	40
GUAIACOL. Carb. oz	1 50	HIERA PICRA.....lb	50
Merck's. oz	18	HOFFMAN'S ANODYNE. lb	75
GUARANA. Powd. lb	4 50	HOMATROPINE, Alk'l'd, 5-gr vials, Merck's.ea	2 25
GUM. Aloes, Barbadoes.....lb	50	HOMATROPINE, Alk., 5-gr v'ls, Merck..ea	2 25
Aloes, Barbadoes, powd.....lb	55	Hydrobromate, 5-gr vials, Merck's.....ea	1 75
Aloes, Cape. lb	20	Hydrochlorate, 5-gr vials, Merck's.....ea	2 10
Aloes, Cape, powd.....lb	20-25	HOMOGLOBIN, powd., Merck's.....oz	1 04
Aloes, Socotrine lb	40	HOPS, new, bulk. lb	37
Aloes, Socotrine, powd.....lb	40	New, ozs. lb	50
Ammoniac tears. lb	40	New, 1/4s, 1/2s. lb	40
Arabic, Turkey, first pick.....lb	55	HYDROCHINON, Merck's. oz	18
Arabic, Turkey, second pick.....lb	40	Merck's. lb	1 42
Arabic, Turkey, sifted sorts. lb	20	HYDROGEN PEROXIDE, Drevet's U.S.P.,	
Arabic, first pick, granulated.....lb	58	1-lb bots. doz	3 00
Arabic, first pick, powd.....lb	60-65	Drevet's U.S.P., 1/2-lb bots.....doz	1 90
Asafoetida, Calcutta. lb	40	Drevet's U.S.P., 1/4-lb bots.....doz	1 40
Asafoetida, powd. lb	45	Marchand's, 1-lb bots.....doz	8 00
Asphaltum. lb	15	Marchand's, 1/2-lb bots.....doz	5 25
Benzoin, marble, select. lb	50	Marchand's, 1/4-lb bots.....doz	3 80
Benzoin, powd. lb	55	Marchand's, 1/8-lb bots.....doz	2 25
Camphor, Japanese, 1-oz blocks, 1-lb box..lb	1 52	M. C. W., 1-lb bots.....doz	3 00
Camphor, bulk lb	1 49	M. C. W., 1/2-lb bots.....doz	1 80
		M. C. W., 1/4-lb bots.....doz	1 20

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Oakland, 1-lb bots.....doz	6 50	Oxide, brown, pure, Merck's.....lb	74
Oakland, ½-lb bots.....doz	4 00	Peptonized, Merck's.....oz	24
Oakland, ¼-lb bots.....doz	2 25	Phosphate, precipitate.....lb	39
Oakland, 5-lb bots.....ea	1 59	Phosphate, U. S. P., scales.....oz	11
HYDRO NAPHTHOL.....oz	75	Phosphate, U. S. P., scales.....lb	65
HYDRASTINE, Alkaloid, Merck's.....oz	10 04	Pyrophosphate, soluble, Merck's.....lb	77
Hydrochloride, Merck's.....oz	10 04	Pyrophosphate, U. S. P., 1880.....oz	11
HYDRASTININE, Hydrochloride, Merck's,		Pyrophosphate, U. S. P., 1880.....lb	77
15-gr vials.....ea	2 10	Reduced (Quevenne's).....lb	58
HYDROQUINONE, Merck's.....oz	18	Reduced (Quevenne's).....oz	10
HYOSCINE, Amorphous, Merck's, 15-gr		Salicylate, 1-oz vials, M. C. W.....oz	15
vials.....ea	2 00	Subsulphate, M. C. W.....oz	6
Hydrobromate, 5-gr vials, Merck's.....ea	2 00	Subsulphate, M. C. W.....lb	36
Hydriodide, 5-gr vials, Merck's.....ea	2 00	Subsulphate, sol., M. C. W.....lb	23
Sulphate, 5-gr vials, Merck's.....ea	2 00	Succinate, Merck's.....oz	54
HYOSCYAMINE, Alkaloid, crys., Merck's,		Sulphate, dried.....lb	20
15-gr vials.....ea	4 75	Sulphate, gran., pure.....lb	18
Amorphous, Merck's.....gr	25	Sulphate, pure, cryst., M. C. W.....lb	20
Hydrobromate, Amorph., Merck's, 15-gr.....ea	3 00	Sulpho-Carbolate, 1-oz vials, M. C. W.....oz	13
Sulphate, crys., Merck's, 15-gr.....ea	3 03	Tannate, 1-oz vials, M. C. W.....oz	22
Sulphate, Amorph., 5-gr vials, Merck's.....ea	1 25	Tartrate and Ammonia, M. C. W.....oz	11
IATROL.....oz	95	Tartrate and Ammonia, M. C. W.....lb	72
ICHTHARGAN, Merck's.....oz	3 00	Tartrate and Potassium, M. C. W.....oz	10
ICHTHOFORM, Merck's.....oz	1 00	Tartrate and Potassium, scale, M. C. W.....lb	58
ICHTHYOL, 1-oz vials, Merck's.....oz	32	Tersulphate, sol., U. S. P.....lb	40
¼s, Merck's.....oz	4 25	Valerianate.....oz	22
½s, Merck's.....oz	4 10	IODOTHYRINE.....oz	3 40
1s, Merck's.....oz	4 00	ISINGLASS, American.....lb	1 25
INDIGO, Manila, extra.....lb	75	Russian.....lb	5 25
IODIPIN (10% Iodized Sesame oil),		KAMALA.....lb	65
Merck's.....oz	28	Powd.....lb	75
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47	KAOLIN.....lb	10
Chloride, 1-oz vials, M.C.W.....oz	52	KERATIN (Pepsinized), Merck's, ½s.....oz	3 53
Resublimed, 1-oz vials, M. C. W.....oz	35	KOUSSO.....lb	75
Resublimed, M. C. W.....lb	3 53	Powd.....lb	75
Burnham's, soluble.....oz	1 00	KRYOFINE.....oz	1 00
ODOFORM, bulk, M. C. W.....lb	3 85	LACTUCARIUM, Merck's.....oz	54
Cryst. or powd., Merck's.....oz	34	LACTOPHEPIN.....oz	1 00
Deodorized.....oz	54	LANOLIN.....lb	80
IODOL.....oz	1 25	Lanae Adeps, 1-lb cans, B. J. D.....lb	35
IRON, Acetate, dry, 1-oz vials, M.C.W.....oz	24	Lanae, British.....lb	35
Acetate, liquor.....lb	44	LANUM (Adeps Lanae Hydrosus), Merck's.....lb	40
Albuminate.....oz	20	LARD, Benzoated, 5-lb cans.....lb	28
Ammoniated, M. C. W.....lb	44	LARGIN, Merck's.....oz	1 75
And Ammonium Cit., Merck's.....lb	79	LEAD, Acetate, med. crys. or gran.,	
Arsenate, 1-oz vials.....oz	18	Merck's.....lb	33
By Hydrogen, Merck's.....lb	58	Acetate, white.....lb	18
Carbonate, precipitated.....lb	18	Acetate, white, powd.....lb	25
Carbonate, proto.....lb	42	Acetate, purified, gran., 1-lb cart., M.C.W.....lb	33
Carbonate, saccharated.....lb	45	Bromide.....oz	24
Chloride, 1-oz vials.....oz	8	Carbonate.....lb	12
Chloride, crystal.....lb	34	Chloride, 1-oz vials.....oz	11
Chloride, sol. for tincture.....pt	35	Chromate, M. C. W.....lb	1 19
Citrate, soluble, 1-oz vials.....oz	11	Iodide, 1-oz vials, M. C. W.....oz	27
Citrate, soluble, M. C. W.....lb	80	Nitrate, 1-lb boxes, M. C. W.....lb	23
Citrate and Quinine, sol., M. C. W.....lb	2 00	Nitrate, chemically pure, M. C. W.....lb	40
Citrate and Quinine with Strych., M.C.W.....lb	2 55	Oxide, chemically pure, M. C. W.....lb	84
Citrate and Quinine with Strych., M.C.W.....oz	26	Oxide, Merck's.....lb	84
Citrate and Strychnine, 1-oz vials, M.C.W.....oz	13	Subacetate, sol.....lb	35
Ferrocyanide, 1-oz vials, M. C. W.....oz	10	Sulphate, pure, M. C. W.....lb	63
Ferrocyanide, M. C. W.....lb	65	Tannate, 1-oz vials, M. C. W.....oz	24
Filings.....lb	16	LEAVES, Aconite, German.....lb	30
Glycerino Phosphate.....oz	32	Aconite, powd.....lb	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aconite, pressed.....oz	25
Iodide, 1-oz vials, M. C. W.....oz	36	Angelica, pressed.....oz	25
Lactate, 1-oz vials, M. C. W.....oz	10	Bay, bulk.....lb	15
Lactophosphate, 1-oz vials, M. C. W.....oz	19	Belladonna, English, bts.....lb	1 25
Nitrate, sol., U. S. P., M. C. W.....lb	34	Belladonna.....lb	30
Oxide, black.....lb	49	Belladonna, powd.....lb	35
Oxide, brown, com'l, Merck's.....lb	22	Belladonna, pressed.....oz	35

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Blessed Thistle, pressed.....oz	34	Powd. lb	75
Borage, pressed. oz	35	MADDER, Dutch. lb	15
Buchu, long. lb	55	MAGNESIUM, Benzoate, Mallinckrodt's...oz	24
Buchu, short. lb	40	Bromide, Mallinckrodt's. oz	25
Buchu, powd. lb	40	Calcined, Jennings', 1-lb cans.....lb	85
Buckbean, pressed oz	30	Calcined, K. & M.'s, 1-lb cans.....lb	75
Cocoa.....lb	45	Calcined, K. & M.'s, heavy.....lb	80
Conium. lb	30	Carbonate, Jennings', 2-oz.....lb	35
Conium, powd. lb	35	Carbonate, Jennings', 4-oz.....lb	35
Conium, pressed. oz	30	Carbonate, K. & M.'s, 1-oz.....lb	27
Coltsfoot, pressed. oz	25	Carbonate, K. & M.'s, 2-oz.....oz	23
Damiana.....lb	30	Carbonate, K. & M.'s, 4-oz.....lb	23
Digitalis, pressed. oz	35	Carbonate, K. & M.'s, small sq.....lb	60
Digitalis. lb	35	Carbonate, powd., in 65-lb bbls.....lb	13
Digitalis, powd. lb	35	Carbonate, powd., in 10-lb boxes.....lb	16
Eucalyptus. lb	20	Citrate, dry, English.....lb	65
Grindelia Robusta lb	25	Citrate, sol. doz	1 75
Grindelia Squarosa lb	40	Glycerinophosphate, Merck's.....oz	44
Hemlock, pressed. oz	30	Hypophosphite, 1-oz vials, M. C. W.....oz	20
Henna. lb	50	Hypophosphite, M. C. W.....lb	1 69
Henna, powd. lb	55	Hypophosphite, Merck's. oz	20
Henbane. lb	30	Iodide, M. C. W.....oz	47
Henbane, powd. lb	30	Sulphite, Mallinckrodt's lb	49
Henbane, pressed, oz.....lb	30	MANGANESE, Black, Oxide lb	8-10
Jaborandi. lb	35	Phosphate, M. C. W.....oz	18
Jaborandi, powd. lb	40	Carbonate, 1-oz vials, M. C. W.....oz	14
Laurel. lb	25	Chloride, 1-oz vials, M. C. W.....oz	14
Lovage, pressed, oz.....lb	30	Hypophosphite, 1-oz vials, M. C. W.....oz	20
Lungwort, pressed, oz.....lb	34	Hypophosphite, Merck's.....oz	20
Marjoram, sweet lb	36	Iodide, 1-oz vials, M. C. W.....oz	47
Rosemary, bulk. lb	20	Peptonized, Merck's. oz	29
Rosemary, pressed, oz.....lb	23	Phosphate, M. C. W.....oz	18
Sage, oz. lb	25	Sulphate, 1-oz vials, M. C. W.....oz	9
Savin, pressed, oz.....lb	25	MANNA, Large flake lb	90
Senna, Alexandria, garbeled.....lb	30	Small flake. lb	60
Senna, Alexandria, powd. lb	30	MENTHOL. oz	35
Senna, Tinnevely, select.....lb	25	Cryst., 1-oz vials, Mallinckrodt's.....oz	35
Stramonium, powd. lb	30	Crystallized. lb	3 85
Stramonium, pressed, oz.....lb	24	MERCURY, Chloride, Merck's.....lb	99
Thyme, pressed, oz.....lb	24	Ammoniate, d white precip. lb	1 25
Uva, Ursi. lb	20	Bisulphate. lb	75
Witch Hazel, pressed, oz.....lb	23	Cyanide.....oz	31
LEECHES. ea	10	Iodide, Green, Merck's oz	24
2 dozen lots.....ea	8	Iodide, green, 1-oz vials, M. C. W.....oz	24
LEPTANDRIN. oz	35	Iodide, Red, Merck's.....oz	26
LIME, Chloride, 35-lb cans.....lb	5	Iodide, red, 1-oz vials, M. C. W.....oz	26
Chloride, in bbls of 350 lbs.....lb	2 1/4	Iodide, Yellow, Merck's.....oz	24
Chloride, 1b cans doz	90	Iodide, yellow, 1-oz vials, M. C. W.....oz	24
Chloride, 1/2-lb cans.....doz	65	Nitrate, proto., 1-oz vials, M. C. W.....oz	27
Chloride, 1/4-lb cans.....doz	45	Nitrate, solution, 1-oz vials.....oz	27
LITHARGE. lb	12	Oxide, black, 1-oz vials.....oz	18
LITHIUM, Benzoate, 1-oz vials, M. C. W.....oz	16	Oxide, red (red precip.).....lb	1 20
Bromide, Merck's. oz	24	Oxide, yellow, 1-oz vials.....oz	18
Bromide, 1-oz vials, M. C. W.....oz	24	Salicylate, M. C. W.....oz	27
Carbonate, Merck's. oz	20	Subsulphate, 1-oz vials. oz	15
Citrate, 1-oz vials, M. C. W.....oz	18	Subsulphate. lb	1 06
Citrate, cryst. or powd., Merck's.....oz	18	Sulphuret, black. lb	78
Iodide, Merck's. oz	38	With Chalk, 1-lb cartons.....lb	50
Salicylate, 1-oz vials, M. C. W.....oz	16	METHYL, SALICYLATE. lb	80
LITMUS. lb	50	METHYLENE, Blue Medicinal, Merck's...oz	45
Paper. doz	50	MILK SUGAR, Cryst.....lb	30
LODESTONE. lb	75	Powdered, bulk lb	23
LONDON PURPLE. lb	20	M. C. W., 1-lb cartons lb	30
LOSOPHAN. oz	1 80	MORPHINE. Sulphate, 1/8s, 1-oz box, M.	
LUPULIN, German. lb	75	C. W. oz	3 25
LYCOPodium. lb	75	Sulphate, 1/8s, 2 1/2-oz box, M.C.W.....oz	3 20
LYCETOL. oz	4 25	Sulphate, 1-oz vials, M.C.W.....oz	3 00
LYSOL, 1-gal. jugs.....gal	4 00	Sulphate, 5-oz can, M.C.W.....oz	2 95
Pints. doz	8 00	In 10-oz lots, 10c oz less.	
MACE.....lb	75	Morphia, Acetate, 1/8s, M.C.W.....oz	3 45

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Morphia, Muriate, $\frac{1}{8}$ s, M.C.W.....oz	3 45	Cloves.....lb	1 75-2 00
Morphia, Valerianate, $\frac{1}{8}$ s, M.C.W.....oz	4 45	Cocanut	20-25
Other salts or Morphine subject to market price based on above.		Codliver, White, Norwegian	1 75
MOSS, Iceland. lb	18	Codliver, white, Norwegian, 5-gal cans..gal	1 60
Irish. lb	15	Codliver, white, Newfoundland.....gal	1 40
Irish, bleached. lb	20	Cognac, green. oz	2 50
MUSK, Chinese. oz	40	Cologne. oz	50
Tonquin, grain. dr	3 00	Copaiba.....lb	1 75
MUSTARD, Colman's, 4-oz cans.....doz	1 75	Coriander. oz	90
Colman's, 16-lb cans.....lb	50	Cotton Seed (salad), 5-gal can.....gal	1 05
Yellow, Imperial, 5-lb cans.....lb	18	Cotton Seed (salad), 1-gal can.....gal	1 35
NAPHTHALIN, Balls. lb	5-7	Croton, 24-oz bots.....lb	1 35-1 50
Resublimated, Merck's. lb	27	Croton	20
Pure, 1-lb cartons, M. C. W.....lb	27	Cubebs. lb	1 60-1 70
NAPHTHOL, Alpha. oz	30	Ergot, Keith's. oz	57
Beta. oz	10	Erigeron, Keith's. oz	38
NICKEL, Bromide, Merck's.....oz	32	Erigeron. lb	1 60
Bromide, 1-oz vials, M.C.W.....oz	29	Eucalyptus. lb	80
Nickel and Ammonia Sulphate, M. C. W..lb	34	Fennel Seed. lb	2 00
Sulphate, 1-oz vials, M. C. W.....oz	10	Fusil, purified. lb	80
Sulphate, Merck's. oz	10	Geranium, Rose, Chris.....oz	75
NOSOPHEN. doz	4 50	Hemlock. lb	65
NUTGALLS, Aleppo. lb	30	Hydrocarbon. gal	1 25
Aleppo, ground. lb	35	Jasmin, alcoholic. lb	3 00
Aleppo, powd. lb	35	Juniper Berries. lb	1 25-1 50
NUTMEGS, Macassar, large.....lb	60	Juniper, wood. lb	75
Penang, powd. lb	65	Lard. gal	1 10
NUTS, Areca lb	30	Laurel, expressed. lb	60
Areca, powd. lb	40	Lavender, Flowers. lb	3 50
Kola. lb	35	Lavender, Garden. lb	1 25
Kola, powd. lb	40	Lemon.....lb	2 00-2 25
NUX VOMICA. lb	25	Lemon, Sanderson's. lb	2 45
Powdered or rasped.....lb	25	Lemon Grass. lb	4 00
OAKUM lb	15	Linseed, raw	70
Surgeon's. lb	20	Linseed, raw, case.....gal	63
OIL, Almonds, Bitter, true, Merck's.....lb	6 59	Linseed, boiled	70
Almonds, Bitter, Allen's.....oz	75	Linseed, boiled, case	65
Almonds, Sweet, Allen's.....lb	75	Mace, expressed. lb	1 75
Almonds, Sweet. lb	45-60	Male Fern, ethereal.....oz	35
Amber, rectified. lb	60	Myrbane. lb	40
Anise. lb	2 00-2 25	Mullein.....oz	45
Bay Leaves, true.....oz	40	Musk, alcoholic. oz	1 00
Bay Leaves. lb	4 00-4 25	Mustard, essential. oz	50
Benne.....gal	1 20	Mustard, expressed. gal	90
Bergamot	4 00-4 25	Neatsfoot, No. 1. gal	90
Birch Tar, rectified.....lb	1 25	Neroli, Petal. oz	3 00
Cade.....lb	50	Neroli, Bigarade. oz	5 75
Cajuput (21-oz bottles).....lb	1 10-1 35	Neroli, Petit Grain. oz	55
Calamus. oz	45	Nutmegs, essential. oz	35
Camphor, E. I. lb	45	Olive, pure, Malaga.....gal	1 25
Caraway, seed. lb	2 25	Olive, California. gal	3 00
Cardamon. oz	2 50	Olive, small	3 75
Cassia	1 75-2 00	Olive, $\frac{1}{2}$ -gals. gal	3 25
Castor, Baker's A. A.....gal	1 38-1 50	Olive, large. doz	7 50
Castor, Marsh's. lb	1 34-1 45	Olive, imported. gal	2 00-2 10
Castor, 2-oz bottles.....doz	85	Orange, bitter. lb	4 50
Castor, 4-oz bottles.....doz	1 25	Orange, sweet. lb	3 00
Castor, 6-oz bottles.....doz	1 75	Origanum, pure. lb	60
Castor, 8-oz bottles.....doz	2 25	Origanum, Chris. lb	1 85
Castor, 12-oz bottles.....doz	2 50	Palm. lb	25
Castor, 16-oz bottles.....doz	3 75	Patchouly.....oz	75
Cedar	60-100	Pennyroyal	4 00
Cedrat. oz	40	Pepper, black. oz	20
Celery. oz	1 40	Peppermint, Hotchkiss	3 25-3 50
Chamomile, German. oz	5 00	Peppermint, Wayne Co. lb	2 75-3 00
Chamomile, Roman. oz	1 75	Peppermint, Western	2 75-3 00
China, Nut. gal	1 00	Pimento. oz	30
Cinnamon, Ceylon. oz	90	Pinus, Sylvestris, German. lb	1 50
Citronella. lb	75-90	Pinus, Pumilio. lb	4 50
		Pinus Pumilio. oz	40

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Rhodium	oz	35	PHENOLPHTHALEIN	oz	34
Rose, Kizanlik.	oz	5 75	PHOSPHORUS, 1-lb cans.....	lb	85
Rosemary, flowers.	lb	1 25-1 50	½-lb cans.....	lb	95
Rue.....	oz	40	¼-lb cans.....	lb	1 05
Sandalwood, English.	lb	5 50	Amorphous.	lb	1 44
Sandalwood, German.	lb	3 00-3 20	PIPERAZIN, Schering's 10-gm vials.....	bot	1 50
Sassafras.	lb	90-1 00	½-oz and 1-oz.....	oz	4 25
Savin.	lb	1 75	PIPERIN, 1-oz vials, Mallinckrodt's.....	oz	62
Spearmint.	lb	4 00	Merck's.	oz	62
Sperm.....	gal	1 00	PIPE CLAY.	lb	12
Spike.	lb	35	PITCH, Burgundy.	lb	12
Spruce.....	lb	85	PITH, Sassafras.	lb	1 50
Tansy.	lb	4 75	PLATINUM and Barium Cyanide, cr.,		
Tar.....	lb	25	Merck.	gr	14
Thyme, white.	lb	1 50	And Potassium Chloride, M's, 15-gr		
Turpentine, pure.	lb	55	vials	ea	75
Wine, light.	oz	40	Chloride, Merck's	oz	18 00
Wine, heavy.	oz	50	Chloride, solution, 10%, Merck's.....	oz	2 57
Wintergreen	lb	3 75-4 00	PODOPHYLLIN	oz	30
Wormseed.....	lb	3 75-4 00	POPPY HEADS, German.	lb	30
Wormwood.	lb	4 00-4 25	POTASH, Babbitt's, 4 doz in case.....	case	3 40
Ylang Ylang.	oz	4 50	Caustic, pure, by alcohol.....	lb	60
OINTMENT, Basilicon.	lb	65	Caustic, white.	lb	37
Citrine.	lb	65	Caustic, 10-lb cans.....	lb	10-12
Iodine.....	lb	1 25	Solution (liq. potass.)	lb	35
Mercurial, ½ m.....	lb	65	POTASSIUM, Acetate, Merck's, 1-lb bot...lb		42
Mercurial, ⅓ m.....	lb	55	Acetate, M. C. W., 1-lb.....	lb	42
Stramonium.	lb	75	Antimonate, Merck's.	lb	1 09
Tar.....	lb	50	Arsenate, 1-oz vials, Merck's.....	oz	14
Zinc, benzoated.	lb	65	Bicarbonate, cryst., M. C. W.....	lb	20
Zinc, oxide.	lb	65	Bicarbonate, cryst., H. P., Merck's.....	lb	34
OPIUM, powd., Merck's.....	lb	6 50	Bicarbonate, granulated, M. C. W.....	lb	20
ORTHOFORM.	oz	1 40	Bicarbonate, powd.	lb	20
PANCREATIN, Merck's, pure.....	oz	44	Bichromate	lb	18-20
Pure, scales, P. D. & Co.....	oz	50	M. C. W.	lb	34
PAPAIN, Boehringer.	oz	75	Bromide, crys. or gran., 5-lb bxs, M.C.W..lb		32
Merck's.	oz	60	Carbonate, purified, M. C. W.....	lb	41
PARAFFINE, refined.	lb	12-15	Carbonate, bulk.	lb	15
PARALDEHYDE, Merck's.	lb	99	Caustic, pure, Merck's.....	lb	37
Merck's.	oz	14	Caustic, C. P., Merck's.....	lb	2 59
PARIS GREEN.	lb	38-42	Chlorate, cryst.	lb	16-18
PASTILLES, Fumigating, black.....	lb	50	Chlorate, gran., pure, M. C. W.....	lb	22
Fumigating, red	lb	50	Chlorate, powd.	lb	16-18
PEARL ASH.	lb	8-10	Chromate, yellow, neutral.	lb	40
PEEL, Orange, sweet, ground.....	lb	25	Chromate, yellow, H. P., Merck's.....	lb	69
Orange, bitter, coarse.....	lb	20	Citrate, M. C. W.....	lb	72
Orange, bitter, powdered.....	lb	25	Citrate, H. P., Merck's.....	lb	1 19
Orange, sweet, quarters.....	lb	20	Cyanide, fused, M. C. W.....	lb	45
PELLETIERINE, Sulphate, Merck's, 15-gr vial	1 75		Cyanide, C. P. 99%.....	lb	52
Tannate, Merck's, 15-gr vial.....	40		Cyanide, Miner's, 10-lb tin.....	lb	28
PEPPER, black, Singapore, sifted.....	lb	30	Ferricyanide, chem. pure, M. C. W.....	lb	1 34
Black, powd.	lb	30	Ferrocyanide, pure, Merck's.....	lb	59
White.	lb	40	Glycerinophosphate.....	oz	26
White, powd.	lb	40	Hypophosphite, purified, Merck's.....	lb	1 14
PEPSIN, pure, U. S. P.....	lb	4 50	Hypophosphite, M. C. W.....	lb	99
Powd. or scales.	lb	4 50	Iodide, M. C. W., 1-lb boxes.....	lb	2 65
Powd., Ph. G. III.....	oz	25	Nitrate, cryst.	lb	10-12
PEPTONE, Merck's, dry, from meat.....	oz	34	Nitrate, granulated.	lb	10-12
PETROLATUM, 1-lb cans.....	doz	2 00	Nitrate, chemically pure, M. C. W.....	lb	30
50-lb pails.	lb	7	Oxalate, neutral.	lb	28
25-lb pails.	lb	7½	Permanganate, cryst., 1-oz vials.....	oz	8
10-lb cans.	lb	9	Permanganate, large cryst., pure, M.C.W..lb		34
5-lb cans.	lb	10	Permanganate, small cryst.....	lb	25
Snow White, 50-lb pails.....	lb	15½	Phosphate, 1-oz vials.....	oz	11
Snow White, 25-lb pails.....	lb	16½	Phosphate	lb	64
Snow White, 10-lb cans.....	lb	18	Prussiate, red.	lb	65
Snow White, 5-lb cans.....	lb	25	Prussiate, yellow.	lb	35
Snow White, 1-lb cans.....	lb	30	Sulphate, cryst. or powd.....	lb	16
PHENACETINE.	oz	33	Sulphate, chemically pure.....	lb	60
PHENILINE.	oz	1 00	Sulphide (Liver Sulphur).....	lb	24

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Sulphurated, Merck's. lb	25	Burdock, powd.....lb	25
Tartrate (soluble Tartar).....lb	59	Calamus, peeled lb	30
POWDER, Antimonial. lb	85	Calamus, white, peeled and split.....lb	50
Aromatic. lb	1 25	Calamus, powd.....lb	35
Carbolic Acid, disinfecting.....doz	1 50	Cohosh, black, pressed. lb	25
Chalk, aromatic. lb	75	Cohosh, black, powd. lb	25
Chalk, compound. lb	75	Cohosh, blue, pressed, lb.....lb	25
Chalk and Opium. lb	2 50	Cohosh, blue, powd.....lb	25
Composition, 2-oz papers.....lb	35	Colchicum lb	28
Dover's lb	1 50	Colchicum, powd lb	35
Insect, Buhach, 6-lb cans.....lb	60	Columbo, foreign. lb	25
Insect, Dalmatian. lb	25-30	Columbo, powd.....lb	25
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Comfrey, pressed, lb. lb	25
Jalap, comp. lb	1 00	Comfrey, powd.....lb	25
Licorice, comp. lb	25	Cranesbill, pressed, lb.....lb	25
Licorice, comp., 2-oz packages.....doz	75	Culvers, pressed, lb.....lb	25
Rhubarb, comp. lb	1 50	Culvers, powd lb	30
Tooth. lb	50	Dandelion, Am., pressed, lb.....lb	35
PROPYLAMIN, 10% solution, Merck's....oz	55	Dandelion, powd. lb	38
Hydrochlorate, 3/4-oz vials. oz	3 50	Dwarf Elder, pressed, lb.....lb	35
PROTARGOL. oz	1 25	Elecampane, pressed, lb. lb	25
PULVIS ANTIMONIALIS. lb	85	Elecampane, powd lb	20
PYOKTANIN, Blue or Yellow, Merck's....oz	1 50	Gelsemium, pressed, lb.....lb	21
PYRIDINE, Merck's. oz	32	Gelsemium, powd lb	25
QUICKSILVER. lb	80	Gentian lb	16
QUINACETINE. oz	85	Gentian, ground lb	20
QUINALGIN. oz	1 25	Gentian, powd lb	20
QUININE, Alkaloid, 1-oz vials, M.C.W....oz	60	Ginger, African. lb	17
Bisulphate, 1-oz vials, M.C.W.....oz	28	Ginger, African, powd lb	18
Bisulphate, 5-oz cans, M.C.W.....oz	26	Ginger, Jamaica, bleached. lb	27
Citrate, 1-oz vials, M.C.W.....oz	57	Ginger, Jamaica, bleached, powd.....lb	30
Muriate, 1-oz vials, M.C.W.....oz	51	Ginseng lb	8 50-10 00
Phosphate, 1-oz vials, M.C.W.....oz	55	Golden Seal. lb	1 75
Salicylate, 1-oz vials, M.C.W.....oz	54	Golden Seal, pressed. lb	1 75
Sulphate, 1-oz cans, M.C.W.....oz	28	Golden Seal, powd. lb	1 75
Sulphate, 5-oz cans, M.C.W.....oz	25	Hellebore, black, pressed.....lb	20
Sulphate, 25-oz cans, M.C.W.....oz	21	Hellebore, black, powd.....lb	25
Sulphate, 50-oz cans, M.C.W.....oz	20	Hellebore, white, pressed, lb.....lb	22
Sulphate, 100-oz cans, M.C.W.....oz	18	Hellebore, white, powd.....lb	25
Tannate, Neutral, Merck's. oz	38	Indian Hemp, black, pressed, lb.....lb	35
Tannate, 1-oz vials, M.C.W.....oz	37	Indian Hemp, black, powd lb	40
Valerianate, 1-oz vials, M.C.W.....oz	57	Indian Hemp, white, pressed lb	25
QUINOLINE, Merck's oz	45	Indian Hemp, white, powd lb	30
Tartrate, Merck's oz	45	Ipecac, Rio, powd.....lb	2 50
RED SAUNDERS. lb	12	Jalap lb	30
RESIN, Jalap, Merck's.....oz	54	Jalap, powd lb	35
Copaiba. lb	1 50	Kava Kava lb	50
Scamony oz	40	Ladies' Slipper, pressed, lb.....lb	28
RESORCIN, cryst., Merck's oz	18	Licorice, select lb	16
Resublimed, H. P., Merck's.....oz	66	Licorice, pipestem lb	18
M. C. W.....lb	1 50	Licorice, cut, Russian lb	20
M. C. W.....oz	19	Licorice, powd lb	16-20
ROOT, Abscess, pressed, lb.....lb	40	Mandrake, pressed, lb.....lb	30
Aconite, powd.....lb	35	Mandrake, powd lb	35
Aconite, pressed.....lb	32	Marshmallow, cut lb	34
Alkanet lb	25	Marshmallow, powd lb	35
Alkanet, powd.....lb	30	Musk lb	30
Angelica, pressed lb	20	Orris, Florentine lb	25
Angelica, powd lb	25	Orris, Florentine, Fingers.....lb	1 25
Arnica, pressed lb	35	Orris, Florentine, granulated.....lb	35
Belladonna, pressed, lb. lb	25	Orris, Florentine, powd.....lb	30
Belladonna, powd.....lb	28	Pareira Brava, pressed lb	34
Berberis Aquif, pressed, lb.....lb	35	Pink. lb	85
Beth, pressed, lb.....lb	30	Pink, powd. lb	90
Beth, powd lb	35	Pleurisy, pressed lb	25
Blackberry, pressed, lb.....lb	30	Poke, pressed lb	15
Blood, pressed, lb.....lb	30	Poke, powd lb	20
Blood, powd.....lb	35	Pond Lily, white, pressed lb	40
Blue Flag, pressed lb	25	Pond Lily, white, powd lb	40
Burdock, pressed, lb. lb	25	Pond Lily, yellow, pressed lb	30

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Pond Lily, yellow, powd	lb	35	Salol, Merck's	oz	15
Rhatany	lb	30	SALOPHEN	oz	1 00
Rhatany, powd	lb	35	SANTONIN, bulk, M.C.W.	lb	14 09
Rhubarb, East India	lb	75	Cryst., Merck's	oz	99
Rhubarb, East India, powd	lb	75	1-oz vials, M.C.W.	oz	99
Rhubarb, cut in cubes, No. 1.....	lb	1 25	SEED, Angelica	lb	25
Rhubarb, cut in cubes, No. 2.....	lb	1 00	Anise, Italian	lb	20
Rhubarb, cut in fingers, No. 1.....	lb	1 50	Anise, Italian, powd.....	lb	25
Rhubarb, cut in fingers, No. 2.....	lb	1 25	Anise, Star	lb	45
Salep, powd	lb	1 00	Bird, mixed, bulk.	lb	8
Sarsaparilla, American	lb	24	Bird, mixed, boxes.	doz	1 00
Sarsaparilla, American, powd	lb	30	Bird, mixed, cases, 30 pks.....		2 25
Sarsaparilla, Honduras.	lb	65	Burdock	lb	25
Sarsaparilla, Honduras, ground.....	lb	70	Canary	lb	9-10
Sarsaparilla, Honduras, powd.....	lb	70	Caraway, Dutch.	lb	15
Sarsaparilla, Mexican	lb	25	Caraway, powd.	lb	17
Sarsaparilla, Mexican, ground	lb	25	Cardamon, Malabar.	lb	1 00
Sarsaparilla, Mexican, powd	lb	30	Cardamon, Mangalor, bleached.....	lb	1 25
Senega, pressed	lb	80	Cardamon, powd.	lb	1 00
Senega, powd.	lb	85	Celery	lb	25
Silkweed, pressed	lb	28	Colchicum.	lb	50
Skunk Cabbage, pressed	lb	30	Colchicum, powd.	lb	55
Skunk Cabbage, powd	lb	35	Conium	lb	25
Snake, Canada, pressed	lb	50	Coriander, German.	lb	14
Snake, Virginia.	lb	60	Coriander, German, powd	lb	20
Snake, Virginia, powd.	lb	65	Cumin	lb	18-20
Spikenard, pressed	lb	72	Dill	lb	25
Spikenard, powd	lb	30	Fennel.	lb	18
Squills, white, sliced.	lb	20	Fennel, powd.	lb	20
Squills, powd	lb	60	Flax, recleaned.	lb	5½-6
Stillingia, pressed	lb	25	Flax, ground.	lb	5½-6
Stillingia, powd	lb	30	Flax Oil Cake	lb	2½-3½
Stone, pressed	lb	21	Foenugreek, powd	lb	12
Sweet Flag, pressed	lb	25	Hemp, recleaned	lb	6½-8
Turkey Corn	lb	28	Henbane	lb	35
Unicorn, true, pressed	lb	35	Larkspur.	lb	55
Unicorn, true, powd	lb	40	Lobelia.....	lb	60
Unicorn, false, pressed.....	lb	40	Lobelia, powd.	lb	65
Unicorn, false, powd	lb	45	Millet, American.	lb	6-8
Valerian, English, bulk.....	lb	35	Mustard, black, Trieste	lb	10-12
Valerian, English, powd	lb	35	Mustard, white	lb	10-10
Valerian, German	lb	30	Poppy Blue	lb	16
Valerian, German, powd	lb	30	Pumpkin	lb	22
Yellow Dock	lb	25	Rape, California.	lb	6-8
Yellow Dock, ground	lb	30	Sabadilla	lb	35
Yellow Dock, powd	lb	30	Sabadilla, powd	lb	30-35
Zedoary	lb	30	Stavesacre	lb	40
ROSIN, No. 1.	lb	6-8	Stavesacre, powd	lb	45
Barrel.		7 75	Stramonium	lb	25
ROUGE, Jewelers'	lb	50	Stramonium, powd	lb	30
SACCHARIN	oz	20	Sunflower	lb	15
SAFFRON, American	lb	70	Watermelon	lb	25
Spanish.	oz	80	Worm, American	lb	25
Spanish.....	lb	10 00	Worm, American, powd	lb	25
SAL, Acetosella	lb	45	Worm, Levant	lb	35
Epsom	lb	2½-5	Worm, Levant, powd	lb	40
Glauber	lb	1½-4	SEIDLITZ MIXTURE	lb	28-30
Nitre	lb	10-12	SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19
Nitre, granulated.	lb	10-12	Chloride, 1-oz vials, M. C. W.....	oz	84
Nitre, powd.	lb	10-12	Cyanide, 1-oz vials, M. C. W.....	oz	1 04
Prunelle	lb	45	Iodide, 1-oz vials, M. C. W.....	oz	1 04
Rochelle.	lb	28-30	Lactate, Merck's	oz	1 04
Soda.	lb	3-5	Nitrate, cryst., 1-oz vials, M.C.W.....	oz	57
Tartar.	lb	15	Nitrate, cones, 1-oz vials.....	oz	70
SALICINE, Merck's.....	oz	37	Nitrate, fused (Lunar caustic), 1-oz vials,		
Salicine	lb	4 60	M. C. W.	oz	60
SALIPYRINE	oz	1 00	Nitrate, fused, No. 2, 1-oz vials.....	lb	47
SALOL, Mallinckrodt's.....	oz	15	SNUFF, Garrett's, 1-oz tins.....	doz	60
Salol, Mallinckrodt's, cartons	lb	1 17	Garrett's, 1½-oz tins.	doz	1 10
Salol, Merck's	lb	1 25	Garrett's, 3½-oz tins.....	doz	1 75

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Garrett's, 6-oz bots.....doz	3 25	Tin, Chloride	lb	35
Maccaboy, 3 1/3-oz bots.....doz	2 00	SOMATOSE, Biscuit, 8-oz boxes.....doz	4 00	
Rappee	65	Somatose, Ferro, 2-oz tins.....doz	10 50	
Rappee, 3 1/3-oz bots.....doz	2 00	Somatose, 2-oz tins.....doz	8 25	
Scotch, Lorillard's	65	Somatose, 1 1/4-lb tins.....lb	5 25	
Scotch, Lorillard's	2 00	Somatose, 1 1/2-lb tins.....lb	5 00	
Scotch, Garrett's Bladders.....lb	55	SOZOIODOL, Mercury, Merck's.....oz	1 15	
SOAP, Castile, Conti's, white, box 14c less..lb	17	Potassium, Merck's	75	
Castile, mottled, box 8 1/2c; less.....lb	12	Sodium, Merck's	80	
Castile, Kirk's (San Bernaldo) white, 18 bars	3 00	Zinc, Merck's	1 10	
Castile, powdered, white.....lb	35	SPARTEINE, Sulphate, Merck's, 1/8s.....oz	83	
Green, German	25	Sulphate, 15-gr. vials.....ea	12	
Opodeldoc	20	SPERMACETI, in cakes. lb	40-45	
SODA, Ash. lb	2 1/2-5	SPIRIT, Ammonia	75	
Caustic, Sticks, Merck's.....lb	34	Ammonia, aromatic. lb	85	
Caustic, com., drums.....lb	3-4	Camphor	75	
Caustic, com., 10-lb drums.....lb	6 1/2-7 1/2	Chloroform, U. S. P.....lb	75	
Caustic, purified, fused.....lb	40	Lavender	60	
Sal (carbonate) bbls., 1 3/4c.....lb	3	Nitre, U. S. P., 1-lb bots.....lb	65	
Soda Silicate, dry	35	Nitre, U. S. P., 4-lb bots.....lb	58	
Soda Silicate, liquid.....lb	15-25	Nutmeg.	75	
SODIUM, 1-oz vials, M. C. W.....oz	25	Pimento.	65	
Acetate, M. C. W., carton.....lb	17	Rosemary.	65	
Arsenate, 1-oz vials.....oz	9	STEARIN	20	
Arsenite, 1-oz vials, M. C. W.....oz	10	STONE, Pumice, select.....lb	10	
Benzoate, 1-oz vials, M. C. W.....oz	11	Pumice, select, powd.....lb	8-10	
Benzoate, 1-lb bots. lb	56	Rotten	12-15	
Benzoate, true fr. Gum Benzoin, Merck's.oz	29	Rotten, powd	10	
Bicarbonate, C. P., powd., M. C. W.....lb	15	Soap, cut	18	
Bicarbonate, kegs, 3c.....lb	4-5	Soap, powd	8	
Bisulphite, dry, pure, Merck's.....lb	27	STRONTIUM, Bromide, cryst., M. C. W..oz	11	
Borate, neutral, Merck's.....oz	19	Carbonate, M. C. W.....lb	27	
Bromide, M. C. W. lb	35	Hypophosphite, M. C. W.....oz	29	
Cacodylate, Merck's	84	Iodide, 1-oz vial, M. C. W.....oz	30	
Carbonate, pure cryst., 1-lb car., M. C. W.lb	11	Lactate, Merck's	16	
Carbonate, pure gran., 1-lb car., M. C. W.lb	11	Muriate, M. C. W.....lb	32	
Carbonate, dried, C. P., 1-lb car.....lb	27	Nitrate, pure, dried, Merck's.....lb	59	
Cinnamate	59	Salicylate, M. C. W.....lb	83	
Citrate, M. C. W.....lb	74	Sulphate, M. C. W.....lb	79	
Glycerophosphate, 75%, Merck's.....oz	24	STYPTICIN, Merck's	6 50	
Glycocholate.	1 04	STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.oz	1 70	
Hypophosphite, purified, Merck's.....lb	1 14	Arsenate, 1/8-oz vials, M. C. W.....oz	1 70	
Hypophosphite, 1-oz vials, Merck's.....oz	15	Bromide, 1/8-oz vials, M. C. W.....oz	1 70	
Hyposulphite, 112-lb kegs. lb	3	Citrate, 1/8-oz vials, M. C. W.....oz	1 70	
Hyposulphite, less	5	Crystals, 1/8-oz vials, M. C. W.....oz	1 45	
Iodide, 1-oz vials, M. C. W.....oz	31	Hypophosphite, 1/8-oz vials, M. C. W.....oz	1 95	
Iodide, H. P., Merck's.....oz	31	Muriate, 1/8-oz vials, M. C. W.....oz	1 70	
Iodide, M. C. W.....lb	3 53	Nitrate, 1/8-oz vials, M. C. W.....oz	1 70	
Nitrate, cryst., C. P.....lb	29	Phosphate, 1/8-oz vials, M. C. W.....oz	1 80	
Nitrate, gran., pure, 1-lb cartons.....lb	18	Sulphate, 1/8-oz vials, M. C. W.....oz	1 40	
Phosphate, pure, recryst., bulk.....lb	12	Sulphate, 1-oz vials, M. C. W.....oz	1 20	
Phosphate, gran., pure, M. C. W.....lb	13	Crystals, 1-oz vials.....oz	90	
Phosphate, dried, powd.....lb	24	Crystals, in bulk.....oz	85	
Salicylate, Merck's	49	Powdered, in bulk.....oz	80	
Santoninate, Merck's	89	Powdered, 1/8-oz vials.....oz	1 05	
Succinate.....oz	49	Powdered, 1-oz vials.....oz	85	
Sulphate, Glauber Salts.....lb	3-5	STYRAX, liquid, ...	60	
Sulphate, Glauber Salts, bbl.....lb	1 1/2	SUGAR, burnt	25	
Sulphate, dried	18-20	Grape.	25	
Sulphite, crystals	10	Milk, crystals	30	
Sulphite, granulated	18	Milk, powd., bulk.....lb	23	
Sulphite, dry, Merck's.....lb	22	Milk, powd., M.C.W., 1-lb cartons.....lb	25	
Tartrate, Merck's	64	SULFONAL, 1-oz vials.....oz	1 35	
SOLUTIONS, Donovan's	34	SULPHUR, California, ground, 110-lb bags.lb	2	
Fowler's	30	Flowers	5	
Goulard's	35	Flour, Native. lb	2 3/4-3	
Nitrate, Iron	50	Flowers, in bags.....lb	2 3/4-3	
Mercury, Nitrate	20	Flowers, Bergenport	3	
Monrel's	50	Iodide, Merck's	38	

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Lac., precip.....lb	18	Benzoin lb	75
Roll, bbl.....lb	2 3/4-5	Benzoin, comp.....lb	75
Sicily, ground.....lb	5	Blood Root lb	65
Strips lb	15	Buchu lb	65
Washed lb	15	Cantharides lb	75
SUMAC. lb	10	Capsicum lb	65
SYRUP, Ginger, U. S. P.....lb	65	Cardamom lb	75
Hydriodic Acid lb	70	Cardamom, comp.....lb	75
Iron Iodide lb	65	Catechu, comp.....lb	75
Ipecac lb	60	Cinchona, comp.....lb	75
Lactucarium lb	1 00	Cinnamon lb	65
Orange Peel lb	65	Colchicum Root lb	75
Rhubarb lb	60	Colchicum Seed lb	75
Rhubarb, Aromatic lb	65	Columbo lb	60
Rhubarb and Potash.....lb	65	Conium lb	65
Sarsaparilla lb	65	Cubebs lb	65
Sarsaparilla, comp.....lb	65	Digitalis lb	65
Senna lb	65	Ergot lb	75
Senega, U. S. P.....lb	65	Ergot, ethereal lb	80
Simple lb	35	Galls lb	60
Squill lb	60	Gelsemium lb	75
Squill, comp.....lb	60	Gentian lb	60
Stillingia, comp.....lb	60	Gentian, comp.....lb	65
Tolu lb	60	Ginger lb	65
Wild Cherry lb	60	Guaiac lb	75
Yerba Santa comp.....lb	65	Guaiac, ammoniated lb	75
TALCUM, powdered lb	6-8	Guaiac, Dewees' lb	75
Purified lb	25-30	Hyoscyamus lb	65
TAMARINDS, pound bottles.....lb	25	Iodine. lb	1 40
Keg. ea	4 75	Iodine, colorless. lb	1 40
Pulp lb	50	Iodine, comp. lb	1 40
TANNALBIN. oz	85	Iodine, Churchill's. lb	1 75
TANNIN, 1-lb cartons, incl.....lb	85-90	Ipecac lb	80
1-oz cartons, incl.....oz	12	Iron Acetate lb	65
TANNIGEN oz	75	Iron Chloride lb	50
TANNOFORM, Merck's oz	22	Iron Citro-Chloride lb	65
TANNOPINE oz	75	Jalap lb	65
Veterinary oz	25	Kino lb	75
TAR, Barbadoes lb.	25	Lobelia lb	60
Coal gal	25	Lobelia, ethereal lb	65
Pine, bulk gal	40	Myrrh lb	75
Pine, 1/2-lb cans.....doz	75	Myrrh and Capsicum.....lb	75
Pine, 1-lb cans.....doz	90	Nux Vomica lb	65
Pine, 2-lb cans.....doz	1 50	Opium lb	1 25
Pine, gal cans.....doz	6 00	Opium, camphorated lb	60
TARTAR EMETIC, M. C. W.....lb	54	Opium, deodorized lb	1 30
TEREBENE, 1-lb bottles. lb	79	Orange Peel lb	65
Merck's oz	14	Quassia lb	60
TERPIN HYDRATE, cryst., Merck's.....oz	10	Rhatany lb	60
Pounds, Merck's lb	60	Red Saunders lb	65
TERPINOL, Liquid, Merck's.....oz	47	Rhubarb lb	65
THEOBROMINE, Alkaloid, Merck's.....oz	90	Rhubarb, Aqueous lb	60
And Sodium Salicylate, Merck's.....oz	60	Rhubarb, Aromatic lb	70
THIOL, dry oz	1 00	Rhubarb, comp.....lb	65
Liquid. oz	40	Rhubarb, Sweet lb	65
THYMOL, 1-oz vials, Merck's.....oz	25	Rhubarb and Aloes.....lb	65
Pounds lb	2 90	Rhubarb and Senna.....lb	65
THYROIDIN, Merck's oz	1 30	Senna lb	65
TIN, Chloride, Merck's.....lb	53	Senna, comp.....lb	65
Metallic, feathered lb	1 00	Serpentaria lb	65
Muriate, solution lb	35	Stramonium Leaves lb	65
Oxide, white, pure, Merck's.....lb	99	Stramonium Seed lb	65
TINCTURE, Aconite Leaves.....lb	65	Strophanthus lb	1 25
Aconite Root lb	75	Tolu lb	75
Aconite Root, Fleming's.....lb	90	Valerian lb	65
Aloes lb	65	Valerian, ammoniated lb	85
Aloes and Myrrh.....lb	65	Veratrum Viride lb	65
Arnica lb	65	Warburg's lb	1 75
Asafoetida lb	65	TRIKRESOL, S. & G.....lb	60
Belladonna lb	65	TRIMETHYLAMINE, Merck's oz	55

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TRIONAL	oz	1	50	Quassia, powdered.	lb	18
TRIPOLI, bulk	lb	8-12		Red Sanders, ground.	lb	12
TURPENTINE.	gal	1	00	Red, cut.	lb	10
In case.	gal		97	XANTHOXYLIN, Keith's	oz	1 13
Chian	oz		45	XYLOL	lb	70
Venice	lb		35	ZINC, Acetate, Merck's.....	lb	43
URANIUM, Acetate, 1-oz vials, Merck's...oz			59	Acetate, 1-lb bottles, M. C. W.....	lb	43
Chloride, 1-oz vials, Merck's.....oz			47	Benzoate, Merck's	oz	24
Nitrate, 1-oz vials, Merck's.....oz			45	Benzoate, 1-oz vials, M. C. W.....oz		24
Sulphate, 1-oz vials, Merck's.....oz			47	Carbolate, 1-oz vials, M. C. W.....oz		24
UROTROPIN	oz		60	Carbonate, precipitate, 1-lb cartons.....	lb	25
Tablets, 20 in box.....	box		25	Chloride, fused, 1-oz vials, Merck's.....oz		13
UNGUENTUM CREDE, ½-oz jars.....oz			90	Chloride, granulated, Merck's.....	lb	33
URETHANE, Merck's	oz		54	Cyanide, 1-oz vials, M. C. W.....oz		21
VANILLIN, 1-oz vials.....oz			75	Hypophosphite, 1-oz vials, Merck's.....oz		29
VERATRINE, pure, ⅛-oz vials.....oz		2	40	Iodide, 1-oz vials, M. C. W.....oz		37
VERONAL, powd.....oz		1	60	Metallic, pure, feathered.....	lb	27
Tablets, 10c.	ea		30	Oxide, English, Hubbuck's.	lb	50
Tablets, 100s	ea	2	25	Oxide, pure, M.C.W.	lb	30
VERDIGRIS	lb		40	Permanganate, Merck's	oz	52
Powdered	lb		45	Phosphate, M. C. W....., ..oz		10
WATER, Cherry, Laurel.....pt			50	Phosphide, Merck's	oz	23
Chlorine	lb		40	Sulphate, cryst.....	lb	8-10
Distilled.	gal		8	Sulphate, cryst., chemically pure.....	lb	18
Elder Flower	lb		50	Sulphide, 1-oz vials, M. C. W.....oz		16
Orange Flower, triple.....	lb		35	Sulphocarbolate, M. C. W.....	lb	59
Orange Flower	gal	2	00	Sulphocarbolate, 1-oz vials, M. C. W....oz		11
Orange Flower, Chiris, small.....doz		2	00	Sulphate, H. P., Merck's.....	lb	15
Orange Flower, Chiris, large.....doz		3	75	Sulphate, dried, H. P., Merck's.....	lb	25
Rose, triple	lb		40	Sulphocarbolate, Merck's	oz	11
Rose	gal	2	00			
Rose, Chiris, 6¾-gal coppers.....gal		1	75			
Rose, Chiris, small.....doz		2	00			
Rose, Chiris, large.....doz		4	00			
WAX, Bayberry	lb		45			
Bees, yellow, refined.	lb	37-40				
Bees, yellow, oz.	lb		45			
Bees, white, extra.	lb		60			
Bees, white, No. 1.	lb		55			
Bowdlear's, 1-lb cartons.....doz		4	80			
Fruit, can, red.....	lb		8			
Fruit, can, white	lb		8			
Japan	lb	18-20				
WAX, FLOOR	lb	25-33				
Johnson's, 1-lb cartons.....doz		4	00			
Johnson's, ½-lb cartons.....doz		2	25			
Johnson's, ¼-lb cartons.....doz		1	40			
WHITING, Gilders'	lb		3			
Spanish	lb	2½				
WINE, Antimony	lb		65			
Aromatic	lb		65			
Colchicum Root	lb		75			
Colchicum Seed	lb		65			
Ergot	lb	1	25			
Ipecac	lb	1	25			
WOOD, Brazil, ground.....	lb		10			
Camwood	lb		10			
Fustic, cut	lb	3½-5				
Fustic, ground	lb		6			
Guaiac, rasped	lb		10			
Hypernic.	lb	8-10				
Logwood, chip.	lb	8-10				
Logwood, ground.	lb	8-10				
Nic.	lb	8-10				
Quassia, chip.	lb		15			
Quassia, ground.	lb		18			

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65
Apollinaris, 50 qt bots in case.....	8 50	2 25
Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Bartlett, 50 qt. bots. in case.....	8 00	2 25
Bethesda, 50 qt. bots. in case.....	7 50	2 25
Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Bythia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Carlsbad, Muhlbun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50
Franz Joseph, 50 bots. in case.....	11 00	3 00
Garrod Spa Lithia, pints.....	6 00	2 00
Garrod Spa, Lithia, ½-gal.....	....	5 00
Hathorn, 48 pt. bots. in case.....	8 00	2 50
Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, ½ gallons.....	9 50	6 50
Londonderry Lithia, 100 pints.....	13 50	1 75
Poland, qts., 50 to case.....	9 00	2 50
Rackoczy Kissengen .....	....	5 00
Red Raven Splits.	5 00	1 35
Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Veronica .....	....	5 50
Vichy Water Celestine.....	10 00	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.....	12 00	4 50
White Rock Splits.	9 90	1 20
White Rock, pints	11 50	1 50
White Rock, quarts.	8 85	2 25
(Cash discount 5% on case prices White Rock.)		

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FACULTY AND LABORATORIES.

Chemistry.—Professor F. T. Green, Ph.G., lectures, reviews, and exercises in the Chemical Laboratory eight hours each week for two terms of thirty-two weeks each.

Pharmacy.—Professor W. M. Searby, Ph.C., assisted by Instructor F. W. Nash, Phar.B., lectures, reviews, reading and dispensing of prescriptions and operative Pharmacy in the Pharmaceutical Laboratory, eight hours each week for two terms of thirty-two weeks each.

Botany.—Professor Henry B. Carey, B.S., M.D., lectures, reviews and exercises in the Microscopical Laboratory two hours each week for one term of thirty-two weeks.

Materia Medica.—Professor Henry B. Carey, B.S., M.D., and Instructor F. W. Nish, Phar.B., lectures, demonstrations and reviews three hours each week to the Junior Class and two hours each week to the Senior Class for one full term each.

Physiology.—Professor Henry B. Carey, B.S., M.D., lectures and reviews one hour each week for thirty-two weeks to Junior Class.

Microscopy and Vegetable Histology.—Professor Henry B. Carey, B.S., M.D., lectures, reviews and exercises in the Microscopical Laboratory for two hours each week for one term of thirty-two weeks.

Pharmacognosy.—Professor Henry B. Carey, B.S.M.D., lectures, reviews and exercises in the Microscopical Laboratory five hours each week for one term of thirty-two weeks.

Toxicology.—H. M. Simmons, Ph.G.M.D., lectures one hour each week for sixteen weeks and analysis under Professor F. T. Green, Ph.G., in Chemical Research Laboratory.

Pharmaceutical Jurisprudence.—Harley R. Wiley, LL.B., lectures one hour each week for sixteen weeks to Senior Class.

Prescription Latin.—F. W. Nish, Phar.B., one hour each week for thirty-two weeks to Junior Class.

Bacteriology.—Professor Albert Schneider, B.S., M.D., Ph.D., lectures, making of cultures, stains, serums, etc., in the Research Laboratory twelve sessions of two hours each.

The above sketch shows the work for the two years' course (Ph.C.). For the Phar.B. degree thirty-two weeks' additional work, chiefly in the Chemical Research and Microscopical Laboratories.

Daily Hours, 8:30 A. M. to 12:30 P. M.

Next term will open September 10, 1907.

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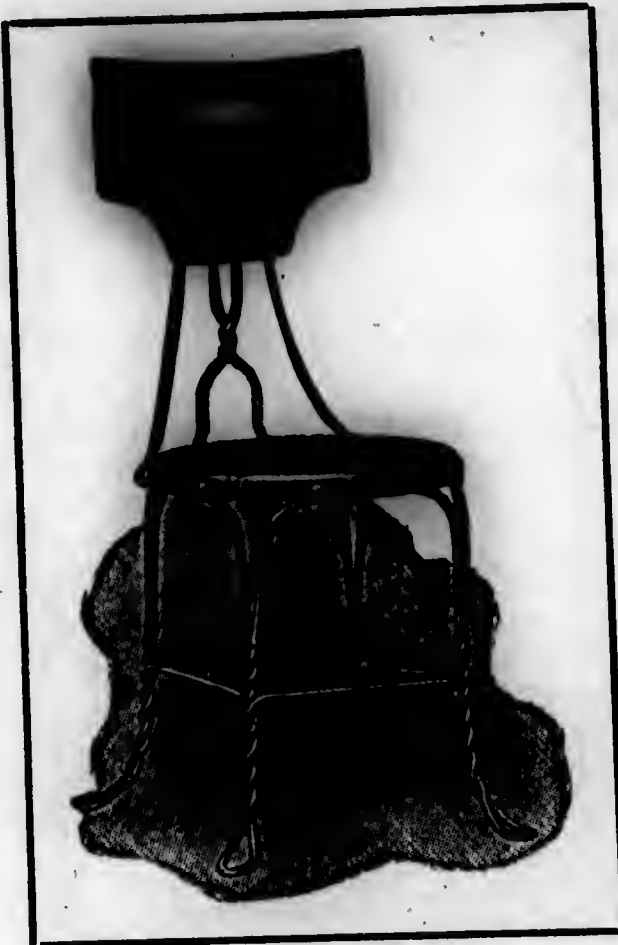
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AUG 19 1907

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VOL. 1

AUGUST, 1907

No. 4

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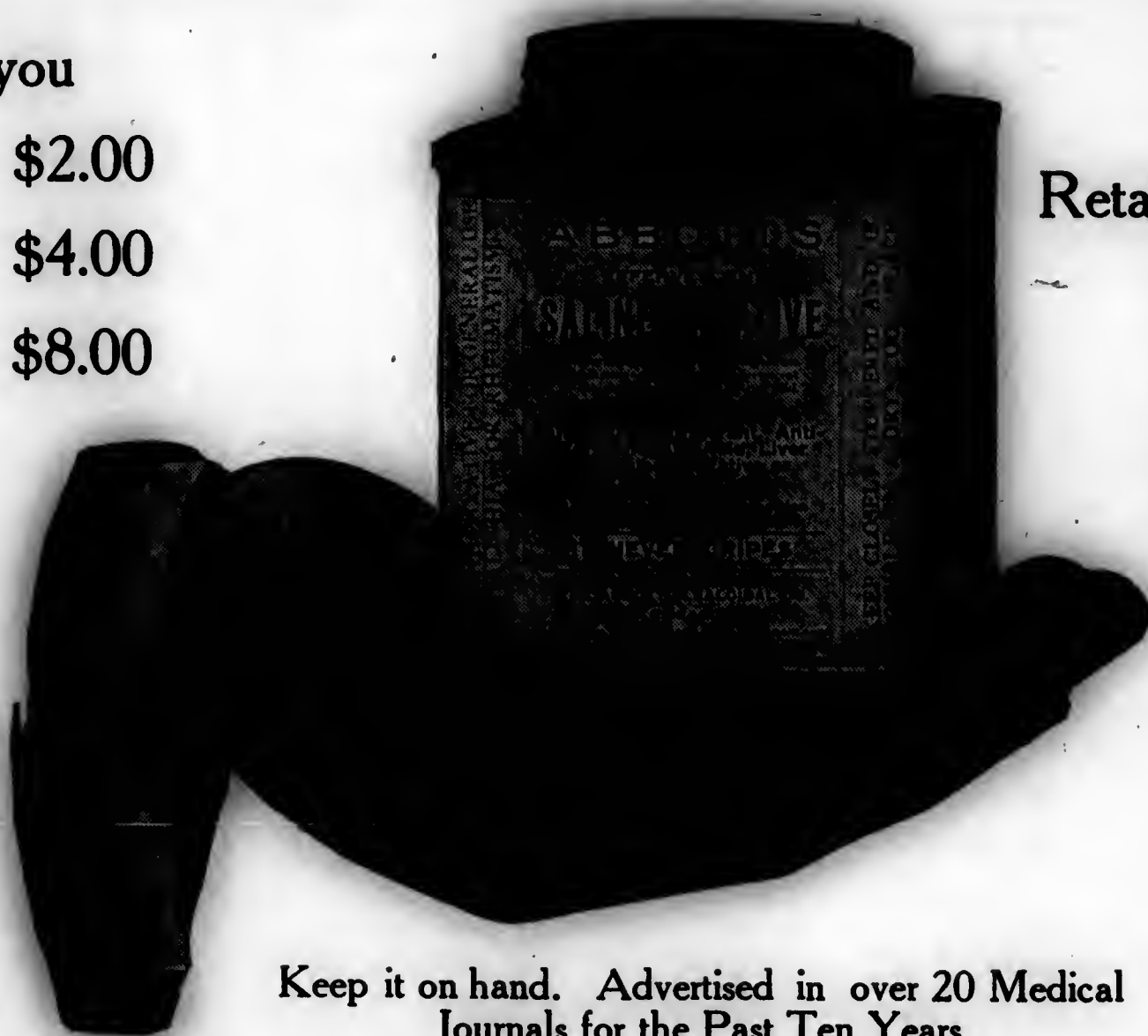
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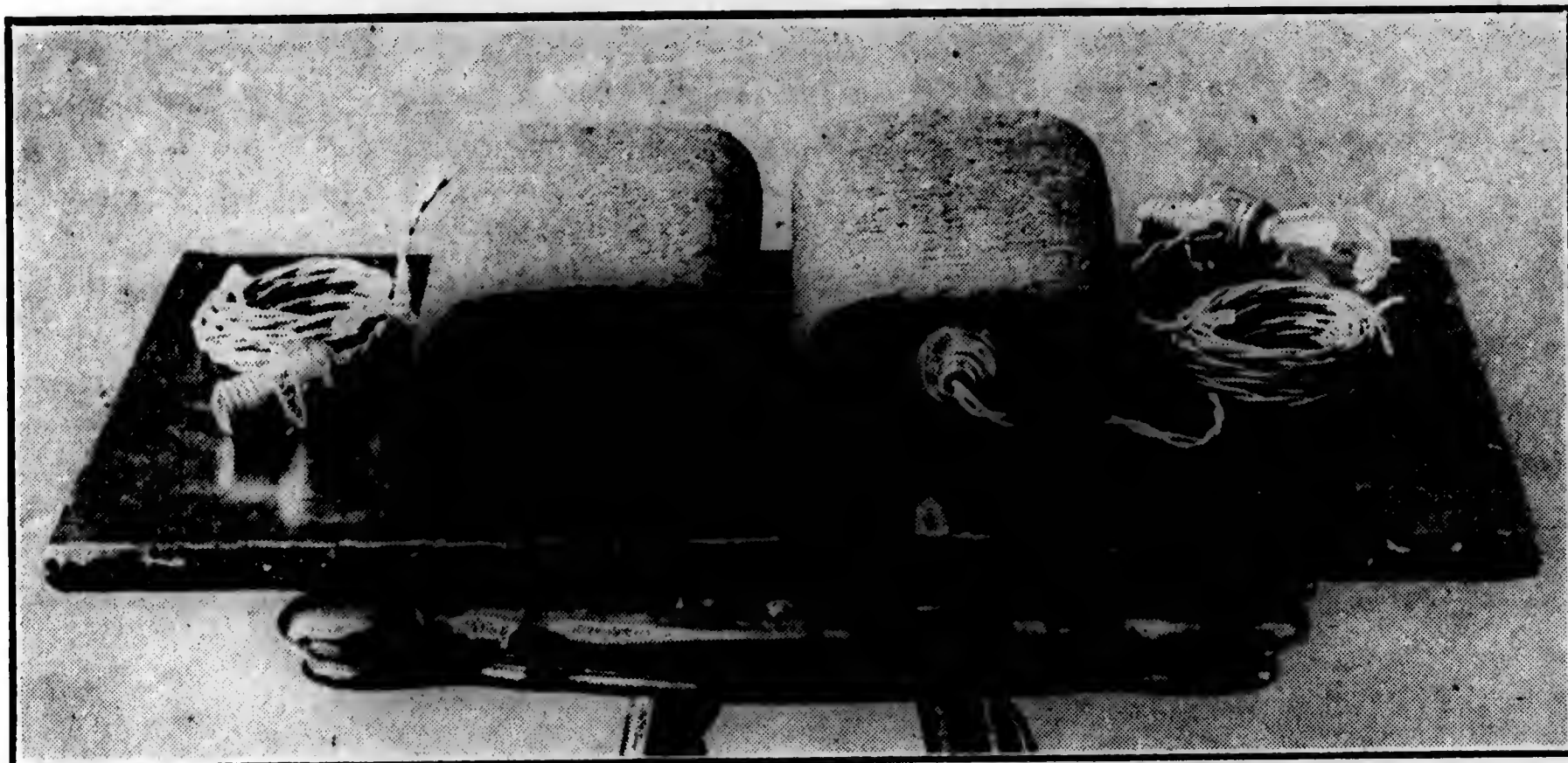
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THE INTERESTS OF THE DRUG TRADE

Vol. 1

AUGUST, 1907

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ALBERT SCHNEIDER } *Associate Editors*
H. B. CAREY . . . }

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Address all communications and make all checks and money orders payable to THE PACIFIC PHARMACIST.

Communications on questions pertaining to Pharmacy and the Drug Business are solicited. The name of the writer should accompany every article, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

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Editorial Notes

OUR EXCHANGES A number of our contemporaries have taken note of the fact that we are here; some have even been kind enough to say that we are here to stay. "Glad to see you," seems to be the general expression, and a few have paid us compliments which it will keep us busy the next five years to fully deserve. Now all this is very nice, but it does not make us lie back in our easy chair and smoke the pipe of self-complacency. Rather it spurs us up to make this journal worthy of the generous reception accorded to its infancy, so that its mature life shall be a fulfillment of the promise of its first days.

OUR FRIENDS Many of our friends also have said nice things about us—that is, about the journal. We almost expected this, because they have been saying pleasant things about us personally for years. It's a way they have, and does not offend us. Our business manager insists that some of these "tid-bits" shall be published, because, he says, some people don't read enough of a publication of this kind to form an opinion until they see that somebody else is reading it, and that prompts them to do the same. So, gentle reader, if you have not made up your mind whether the **Pacific Pharmacist** ought to have

your support, just take a minute or two to see what others say of us on page 205.

ALL OUR OWN After all, there is some satisfaction in having a paper that is in a measure all our own—one that we can applaud when it says what we like or abuse when it seems to be, to our thinking, on the wrong side. Now, the **Pacific Pharmacist** will not always say just what everybody wants, but will always be alive to the interests of pharmacists in general and of these Pacific States in particular. So if you like us well enough we should like to drop in upon you about the 10th of every month. But we are modest; we wait for your invitation. If you have not yet invited us, send to our business manager, and he will see to it that we come regularly, and as punctually as circumstances permit.

CALIFORNIA PHARMA-CEUTICAL SOCIETY In his talk to the druggists and drug clerks of San Francisco, Professor Joseph P. Remington urged his hearers to join first their State Pharmaceutical Society and then the American Pharmaceutical Association. And this is just what every pharmacist should do. "It is not good for man to live alone," either at the home fireside or in business. Contact with those having like interests, even when competing for business, is good for all parties concerned. Especially is this true where there is always much to be learned, and nobody "knows it all." We believe the fear of exposing their ignorance keeps more people from attending association meetings than any other one circumstance. This is actually foolish. Nobody knows everything about the pharmacist's calling. Yet

almost every one knows something better than most of his neighbors. Let each give and take. Association meetings afford opportunity for this. After attending one or two meetings, the benefit of them is so clearly realized that no one will willingly be absent.

AMERICAN PHARMA-CEUTICAL ASSOCIATION What has been said above applies with still greater force to the gatherings of the national association. Here congregate the strong men from all parts of the country—the leaders in all departments of pharmaceutical affairs, science, education, legislation, trade. Here are discussed chemistry, materia medica, prescription work, laboratory methods, trade issues, and everything that makes for "the good of the order"—of retail druggists. Unfortunately for the pharmacists of this Coast, the meetings of the association are usually held at a distance of from 2000 to 3000 miles from their homes. The expense of attending these assemblages is beyond the means of the average druggist. Few feel like contributing five dollars a year for the advancement of science, unless they are to derive some benefit themselves from the payment. Why then, should they pay that amount to this organization, when they can scarcely ever attend its meetings?

WHY PAY \$5.00 A YEAR? 1. Because the membership in the association keeps you in touch with the "live" men in our profession.

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5. Because it preserves in permanent form the discussions upon many subjects by the leaders in pharmacy.

6. Because it contains a summary of the proceedings of the various State associations.

7. Because it preserves in convenient form for reference, solutions of prescription difficulties and other drug store problems.

8. Because you owe it to your calling to do your part to sustain the chief organization in this country for the advancement of pharmacy.

IMPORTANT INDUSTRY MENACED BY HASTY LEGISLATION

Druggists are not the only people to suffer by unwise and half-digested legislative enactments. The California fruit growers are in danger of having their crops of this year virtually confiscated, and their property in fruit trees that have taken all the way from two to twenty years to attain maturity rendered almost valueless for all time, if the present ruling of the Department of Agriculture is to be permanent. Many fruits are treated with sulphur dioxide gas before being dried. This is for the double purpose of partly bleaching the fruit, and of preserving it from becoming wormy. The Department has issued a ruling (Food Inspection Decision No. 76.) which limits the amount of sulphur dioxide in dried fruit to 35/1000 of one percent, whereas most of the farmers and many eminent

chemists are of the opinion that more than twice that amount is actually necessary, and that three times as much ought to be permitted.

Sulphuring Fruit

Undoubtedly some fruits have been oversulphured. It seems quite likely that the action of SO_2 gas upon the delicate ethers which give flavor to fruits has a tendency to injure or destroy them. It is therefore desirable that no more sulphur should be used than is necessary. Dr. Gould, an able and experienced chemist in the Pure Food Department is now investigating the subject, and will report his conclusions to the Government. When it has been determined by experimentation and by experience exactly how much sulphur dioxide is really needed, it will be soon enough for the Department to promulgate orders defining the amounts that may be used with each kind of fruit.

But in the mean time the industry is suffering. Driers have cancelled their contracts to take green fruit, because shippers are afraid to buy the dried products. The trade has been accustomed to bleached or partly bleached fruit. It is doubtful if the unsulphured fruit can be sold. It is certain that it cannot be sold as freely as the sulphured fruit. We have known of this sulphuring being done for a generation or more, yet we have never heard of any one being injured by it. Probably some harm has been done at times, when people have eaten sulphured fruit freely for a long time. But it has not been shown that there is urgent need of such severe action as that taken by the Department, and the restriction ought to be removed or greatly relaxed until it is known just how much sulphur dioxide is really necessary. This action should be

taken immediately, because the fruit season is already on, and some kinds are even now going to waste because they cannot be dried with a prospect of selling.

Mr. William M. Griffin, one of the oldest fruit packers of this city, is now in Washington endeavoring to induce the Department of Agriculture to modify its ruling. He was told that he was too late—the decision had already been issued. Secretary Wilson is expected in California shortly, and efforts will be made to convince him that the order is too rigid. Should he refuse to modify the decision, President Roosevelt will be appealed to.

Prompt Action Needed The case is urgent, and should be acted upon at once. Even if it could be shown that unsulphured dried fruit will keep as well as the sulphured, it would still do great injury to the dried fruit industry, because it takes time to educate the people to eat a less tempting looking article of food, than the one to which they are accustomed. Hence, much of this year's crop cannot be sold. The Pure Food Law is a good thing. It is already doing the public a great service. But when the Department in making provision to carry out that law does an unnecessary injury to a large industry, it should be as prompt to rescind its needlessly severe regulations as it was to enact them.

Just as we go to press we learn that the Government has modified its ruling on this subject for this year. We are told "that if reasonable care is taken in sulphuring there will be no interference this season with California fruits by either state or federal authorities." This is good news, but it leaves the question unsettled. We hope that a ruling will be made in ample time

for next year's crop that will remove all feeling of uncertainty as to the amount of sulphurous acid that may be used.

INTERCHANGE OF STATE CERTIFICATES The feeling is all but universal that it is desirable to have an interchange of State board certificates provided it can be done without lowering the standard of qualification. This is a difficulty that so far has not been solved. If a pharmacist comes to California from New York, Mississippi, Illinois, or Oregon, wishing to establish himself in business in this State, and brings with him a certificate as licentiate from one of the States mentioned, expecting to be registered without examination, it would be necessary that the certificate that he brings should be of as high a grade as those issued by the pharmacy board of this State. We think, therefore, that a general interchange of certificates would quickly result in lowering the grade of qualification to that of the boards whose examinations were the most superficial. This would be a retrograde movement of such a severe character as to prevent the interchange under present conditions.

BOARD CERTIFICATES DIFFER Efforts have been made for several years to bring about some general agreement in regard to some of the points in the State board examinations, but so far little has been accomplished in this line. Some persons are sanguine enough to believe that by a conference between the boards an agreement can be reached that would equalize the examinations. We do not believe that much can be accomplished in this direction for many years. Unfortu-

nately a notable portion of the members of some of the State boards are persons of limited pharmaceutical education, having been appointed through political influence, so that in a large measure the majority of the boards are not such as would be selected by the general body of pharmacists, if they made the appointments. In other boards there are members of college faculties who demand higher qualifications, and these differences in the personnel of the boards, with their differing views, make it almost impossible for any agreement to be arrived at that would tend to establish uniformity of examinations in the different States.

RE-EXAMINATIONS IRKSOME

It does seem, however, as if some means might be adopted whereby persons of known ability, going from one State to another, should be able to establish themselves in business without being subjected to the annoyance, expense, and loss of time incident to repeated examinations. It ought to be possible to select a national board whose examinations should be of a higher character than those of any State board, whose certificates would be accepted in any State and entitle their holders to registration as licensees.

HIGH-GRADE CERTIFICATES

The effect of such an arrangement would be that men of well known ability would receive life certificates exempting them from examination in any State of the Union, but not, of course, from the registration fees. We believe that many young men would have the ambition to strive for this national certificate, as it would soon become an object much sought after. This would

leave the States' examinations where they are; it would neither injure them nor others; it would not interfere with the grade of examination which the several boards might deem appropriate in their States.

The only difficulty we see in bringing about such a movement is in the selection of the examining body. Applicants could not go from California to New York, or even to Chicago for the purpose of taking the examinations; the time and the expense would be too great; so some provision would have to be made for examinations being conducted at different points. Yet we think that a way could be found whereby such examining body or bodies could be selected.

If the plan above suggested should not be feasible, it might be possible to introduce a system whereby certain Boards would be "accredited", as is done by some universities in regard to secondary schools and colleges. This would involve an actual knowledge of the methods pursued in the examinations by the different Boards and of the value of the credits given for written, oral and practical work. While any scheme that will be devised will present its difficulties, we feel sure that whenever such certificates are wanted badly enough, a way will be found to provide them.

We suggest that the matter may be considered at the approaching joint meeting of the American Conference of Pharmaceutical Faculties and State Boards of Pharmacy.

Prof. Remington at Los Angeles Professor Joseph P. Remington's visit to Los Angeles assumed the nature of an ovation. A number of his former pupils learned of his arrival, and quickly set about to entertain him royally. They gave him

a banquet at the California Club, at which many of the principal druggists as well as other prominent gentlemen were present.

He spoke in terms of praise of this State. He said he came to California to obtain a little rest and did not herald his coming. But since he was discovered, it gave him great pleasure to meet so many of the representative druggists of that city. He spoke of the work of the American Pharmaceutical Association and his words bore such weight that at the close of the speaking, a motion was quickly carried to the effect that all present should sign applications for membership in the national association.

It is stated that thirty-four persons signed applications.

He praised California olive oil and wines, saying that they had made a name for themselves that is worth much commercially.

The A. Ph. A. in California There are less than thirty members of the American Pharmaceutical Association in California. This is not only the parent pharmaceutical body in America, but the largest and most useful. It deserves a much more liberal support than it has ever received in this State. We are glad to note that there is some sign of a revival of interest in this organization, inasmuch as between forty and fifty persons have signified their intention to become members. Let the good work go on.

Another Point on Labeling In our last issue we called attention to the ruling of the Department of Agriculture, with regard to the labeling of Drugs containing alcohol, etc., and published the reply by Dr. W. H. Wiley to our inquiry, (page 142). The question has again risen as to

whether Dr. Wiley's decision as to the National Law applies also to our state law. Referring to the California Pure Drugs Act, which we published in our May number, page 58, it will be seen that "the regulations and definitions adopted for the enforcement of the national food and drugs act of June 30, 1906, shall be adopted by the state board of health for the enforcement of this act."

Section 2 defines the term drug as including "all medicines and preparations recognized in the United States Pharmacopœia or National Formulary for internal or external use, and any substance or substances intended to be used for the cure, mitigation, or prevention of disease of either man or other animal."

It is clear therefore that the California Pharmacists will be required to have all of their labels printed so as to conform with the national law. This requires that immediately under the name of the substance shall be printed "the percent of alcohol and also the proportions of morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, acetanilide, or any derivative or preparation of any such substances."

Will the A. Ph. A. Come to Los Angeles? The Los Angeles druggists have passed a resolution to invite the American Pharmaceutical Association to come to their city in 1908. We join most heartily in this invitation. Their visit to San Francisco in 1889 was a rare treat to us, and we know that it was no less so to the delegates who came from afar. Los Angeles is now rich and beautiful, with a host of attractions near by, and we are sure there is no city in the Union that can offer the delegates a more delightful and refreshing time than our southern metropolis.

Any way, it will be 19 years since the last meeting here. It is time they came again. So, get busy, friends. Send at least 2 or 3 delegates to New York in September with a strong invitation, and compel them to come.

THE A. PH. A. FOR LOS ANGELES IN 1908 The American Pharmaceutical Association came to San Francisco in 1889, nearly 200 strong. They had a fine time—good meetings in the various sections, goodly roll of new members, and a good time generally. It is time for them to come to the Coast again—once in 19 years is not very often. We are glad to hear that our Los Angeles brethren have already agreed to invite them for next year. Let that invitation be given in such strong terms that the Association can't refuse. If 200 came to San Francisco in 1889, 400 ought to come to Los Angeles in 1908. The Association has more members now, transportation is cheaper, and there is more to see in California than there was then. The **Pacific Pharmacist** is endeavoring to arrange to send one of its staff to the meeting in New York next month, and he will have specific instructions to co-operate with the delegates from Southern California in securing the meeting for Los Angeles. A strong delegation should go from the south with like instructions. It will not be so difficult to get them to come as it was twenty years ago. California is nearer than it was then, they know more about us, and **want to know us better.** Get them out here. **Move at once.**

A SCARCITY OF CLERKS IN SEATTLE The Seattle "Times" says that drug clerks are so scarce in that city that some stores must be closed if their proprietors are to have a vacation.

It says: There are not enough pharmacists in Seattle to fill the places of the regular druggists who desire to take a vacation. The consequence is that the proprietor is compelled either to forego his vacation or else close up his place of business. Never before in the history of the city has there been so few graduate pharmacists.

THE MARKET

During the past month a number of important price changes have taken place, as will be observed by reference to the price list on another page. We note particularly as having advanced:

Opium
Morphine
Bismuth Preparations
German Chamomile
Asafoetida
Sabadilla
Oils Bergamot, Lemon and Rose
Jamaica Ginger
Honduras Sarsaparilla
Codeine
Balsam Peru
A decline has taken place in
Camphor
Cocaine
Bluestone

SHARP ADVANCE IN OPIUM

Opium is scarce again. Our price current last month showed an advance to \$5.50 per pound. It is now quoted at \$8.00 to \$9.00 in this market. Of course, morphine, codeine, etc., have also advanced.

At the last State board examination in Pennsylvania a class of 252 took the examination. Out of this large number but 84 were successful. It is a pleasure to note that in some States knowledge is now required as one of the requisites to practice pharmacy.

The new wage scale at Butte, Mont., for drug clerks is as follows: Registered clerks will receive \$28.00 and assistants \$18.50 per week.

PENS AND SHEARS

Under the above title there appears a timely editorial in the "Druggists' Circular," for July. The editor grieves over the fact that many of the pharmaceutical and drug journals copy brazenly and boldly from his journal without giving credit in any way. He even goes so far as to mention the geographical areas in which some of these so-called drug journals originate. "On the Pacific Coast," he says, "there formerly was a paper which has been known to reprint in a single issue as many as five articles from another journal, without one word as to the source of the articles, but we believe it has met a just fate and is now no longer heard of." The editorial comment in part is as follows:

There are a number of so-called pharmaceutical journals in this country and Canada which seem to be editorless; they are made up of clippings thrown together with a pitchfork (as one commentator has picturesquely put it), sometimes with credit and sometimes without, and sometimes, as our correspondent just quoted says, with an effort to avoid blame by giving "technical credit."

Of course, we know that many of the so-called editors of druggists' periodicals have either no time or no ability or no energy to write their own articles, and perhaps they have no appropriation from the publishers out of which to pay for original contributions. Such so-called editors are driven to the expedient of copying from journals which have real editors; there is nothing left for them to do but either clip enough matter to fill their pages, or let the pages remain empty. It is then that the pages of the journals which have real editors are sought, and the real editors would not raise their voices against the clipping method of procuring "copy" if only an honest acknowledgement of credit were made. It is against the discreditable omission of credit, and not against the wholesale use of the shears, that the real editors indite their protests.

The editor in question has a right to

resent this variety of what amounts to little less than petty larceny. There are a large number of so-called medical and drug periodicals which were started for and exist solely for what they can get out of the advertising columns. They have no editorial staff worthy of the name. They have no field of usefulness. They serve no good purpose. They exist solely for what can be squeezed out of credulous but unwise advertisers. In fact, some of these journals have policies which are not far removed from blackmail. Advertisers doubtless take space in many of these publications, not for the worth of the advertising medium, but to obtain a certain kind of protection, which in some quarters nowadays is looked upon as a necessity.

We agree with the editor of the "Circular" that the time is about at hand when some definite policy against this class of parasitic publications should be adopted.

SUCCESS IN BUSINESS.

We commend to the careful consideration of our readers the valuable paper by Harry B. Mason, Ph. G., on the four essentials which a druggist should know about his business. It is our experience that most druggists believe that they are making more money than they actually are, because they have an idea that their profits are larger and their expenses smaller than the result proves, and they wonder why they do not get ahead. They overlook small leaks that are continually going on, and underestimate losses from bad debts, losses of stock from accidents, petty speculations, etc.

The English say: "Take care of the pence and the pounds will take care of themselves." This proverb is well exemplified in a drug store.

THE THEORY OF OPSONINS

By Albert Schneider, M. D., Ph. D.

The discovery of the theory of opsonins by A. E. Wright, of England, was made possible through the earlier investigations and discoveries pertaining to immunity, natural and acquired, phagocytosis toxins, antitoxins, Koch's tuberculin, etc. The discovery, wonderful as it is, is simply a growth, a development of the germ theory of disease. We shall outline the theory very briefly for the benefit of the readers of the **Pacific Pharmacist**.

It has been known for some time that the polynuclear leucocytes (white blood corpuscles) of the blood have the power of taking in and destroying microbes, but it was left to Wright and his students and assistants to demonstrate just why said corpuscles are enabled to do so. It was found that this power is not inherent in the corpuscles themselves, rather the corpuscles are enabled to take up and destroy various species of microbes due to a something which exists in the blood plasm. This something prepares the microbes to be engulfed or eaten by the leucocytes, and is called **opsonin**, from **opsono**, "I prepare the feast." Without the opsonin the white blood corpuscles cannot or do not devour or destroy the microbes, as has been demonstrated experimentally. This is the first great discovery. It was also found that the blood plasm contains many opsonins, each particular kind capable of influencing the white corpuscles for a particular species of microbe. Thus, one opsonin is active with **Staphylococcus pyogenus**, another with **Pneumococcus**, another with **Bacillus tuberculosis**, etc. The pus opsonin is of no value in pneumonia, the tuberculosis opsonin is of no value in anthrax, etc. This is the second great discovery.

With these discoveries the next won-

derful scientific feat was the determination of the **opsonic index**. This is done somewhat as follows, using one particular example as an illustration. White blood corpuscles are washed in a saline solution and mixed with normal blood plasm and an emulsion of living microbes, say **Staphylococcus pyogenus**, the specific cause of boils. This mixed material is now examined under the microscope, and it is determined how many microbes are taken up by one leucocyte. If, for example, it is found that the average of numerous counts is eight microbes to one leucocyte, then this may be designated as representing the normal opsonic index, or an index of 1. Now testing in a similar manner the opsonic index of the blood plasm of a patient afflicted with boils, it will in all probability develop that the index is much below normal, say .5 or .3. The object now is to raise this lowered opsonic index, not only to normal but much above normal, say 1.5 or 2, thus enabling the leucocytes to overpower and destroy the microbes present. This is done by inoculating the patient with a definite number of crushed (killed) pus germs, say 1,000,000,000. The first effect is a further sinking or lowering of the opsonic index, say to .3 or .2, due to the fact that the opsonin of the plasm combines with the introduced microbe toxins as well as with those of the living microbes already present. Now, however, nature asserts itself, resulting in a marked increase in opsonin, raising the index to perhaps normal, or even above normal. A second inoculation produces a similar initial drop in the opsonic index, but less marked than the first, with a still more pronounced reactionary rise. As the general opsonic index rises, the patient improves until health or a normal condition is restored.

The aim in applying the opsonic theory in the treatment of disease is to so regulate the dosage (of crushed microbes) as to obtain an optimum cure producing opsonic effect. Should, for example, the dose above-mentioned, be increased to 150,000,000,000 of crushed pus germs, the general effects might be pernicious, because the already low opsonic power might be almost wholly destroyed or neutralized.

The above will suffice to explain the theory pertaining to opsonins discovered by Professor Wright. It has created an intense interest and gives great promise of early use in the practice of medicine. It will be some time before it can be applied in general practice, because of the special skill required in determining the opsonic index of patients. However, after the average normal opsonic indices are once carefully determined and the optimum graded dosage is established there will be little difficulty in the practical application of the treatment. Some wholesale pharmaceutical manufacturing houses are sending representatives to England to study the method, with a view to preparing the required microbic cultures in the treatment of diseases.

Although this is all new, the theory as propounded and verified experimentally, is so thoroughly plausible in the light of our present serum therapy and our knowledge of bacteriology in disease, that it may be reasonably assumed that our hopes will not be crushed as they were in the case of Koch's lymph, some sixteen years ago. The fact is, the opsonic theory is an outgrowth of Koch's failure. It still remains to be determined what diseases and pathological states are of opsonic nature or influence. It is perhaps not likely that there are opsonins for all diseases, for it is known that

some diseases, as smallpox and diphtheria, are not influenced by opsonins, but by toxins and antitoxins, though the inter-relationship between toxins, antitoxins, and opsonins is very close.

In the future (very near future) the physician will treat certain diseases along the following lines:

1. Determining very carefully the patient's opsonic index in the disease under consideration. This will require certain special skill, time, and certain laboratory facilities which are, however, wholly within the reasonably possible.

2. Administering to the patient carefully graded and adjusted doses of the required microbes. These microbes must no doubt be kept in standard culture, crushed and otherwise prepared for administration. The dosage will be very small, infinitesimal as compared with the usual antitoxin dosage. It is the physician's duty to note, from time to time, the rise and fall of the opsonic index, and modify the time and volume of the dosage accordingly. No doubt special instruments will soon be in use which will enable the physicians to secure blood samples for making opsonic index determinations.

3. It will take time to determine the optimum dosage of the microbic preparations. Whether to inoculate 1,000,000,000 microbes or more or less will depend upon the experimental results, upon the opsonic index of the patient, and upon the stage of the disease, and perhaps upon the general physical condition of the patient at the time.

The present indications are that the discovery of opsonins is the greatest discovery yet made.

A law prohibiting the sale, importation, or manufacture of absinthe went into effect in Belgium, July 28.

SPONGES

By Stanley Adderly

Owing to some one thousand expert Greek sponge divers having emigrated from the Mediterranean to Florida, threatening the extermination of Florida, Rock Island, Sheepswool, and other varieties of the zoophite family, it has been necessary to place restrictions on the Greek divers, and the following bill is now operative:

An Act to regulate the landing, delivery, cure, and sale of sponges.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after May first, anno Domini nineteen hundred and seven, it shall be unlawful to land, deliver, cure or offer for sale at any port or place in the United States any sponges taken by means of diving or diving apparatus from the waters of the Gulf of Mexico or Straits of Florida: **Provided**, That sponges taken or gathered by such process between October first and May first of each year in a greater depth of water than fifty feet shall not be subject to the provisions of this Act: **And provided further**, That no sponges taken from said waters, shall be landed, delivered, cured, or offered for sale at any port or place in the United States of a smaller size than four inches in diameter.

Sec. 2. That every person guilty of a violation of this Act for each offense shall be liable to a fine of not less than one hundred dollars or more than five hundred dollars, which fine shall be a lien against the vessel on which the offense was committed. And every vessel used or employed in violation of this Act shall be liable to a fine of not less than one hundred dollars or more than five hundred dollars or forfeiture, and shall be seized and proceeded against by process of libel in any court having jurisdiction of the offense.

Sec. 3. That any violation of this Act shall be prosecuted in the district court of the United States of the district wherein the offense was committed.

Sec. 4. That it shall be the duty of the Secretary of Commerce and Labor to enforce the provisions of this Act, and upon his request the Secretary of the Treasury and the Secretary of the Navy may employ the vessels of the Revenue-Cutter Service, and of the Navy, respectively, to that end.

Approved, June 20, 1906.

Sponges are gathered in Florida, also Cuba and the Bahama Islands, mainly by hooking (by means of 40-foot poles with an iron hook at the end), and it was to protect the old pioneer hookers

against the invasion of divers that the above law has been passed.

The Greek divers have been very successful, gathering in depths inaccessible to the hooker, and, as a result, the market is fairly well supplied, and prices have ruled lower. Never before in the history of the American fisheries have sponges been obtained by men using diving apparatus, and many had deemed this method not feasible, but the Greeks have been eminently successful, and really brought from great depths large sponges that never would have been gathered by the old-fashioned and crude hooking method, which is restricted to shallower water.

On October 1 the divers will resume operations. Meantime the old hookers are making trips to the sponge beds, having been almost deprived of their vocation and livelihood by this sudden influx of the twentieth century toilers of the deep.

Incompatibility

A gentleman went into a manicure parlor the other day to have his nails attended to. After having the treatment the young lady suggested he try her hair tonic.

"Do," said she, "and you can tell me how you like it the next time you are in."

The next time he was in she wanted to know how he liked the tonic.

"Well, I hadn't thought anything about it," said he. "But you may look and see how it looks."

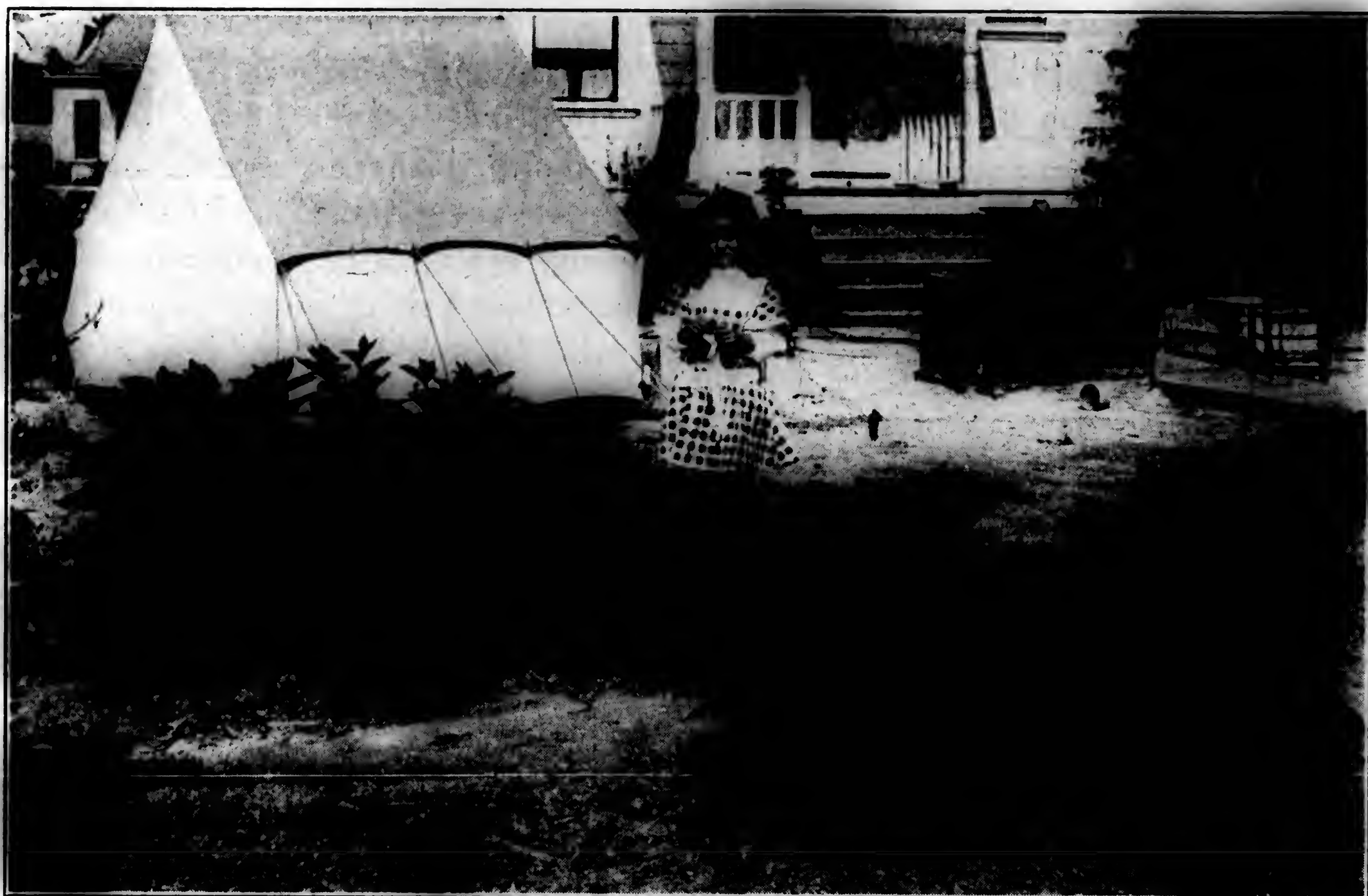
"Why," said she, "what are all these little bumps all over your head?"

"I don't know," said he, "unless your tonic did it."

"Which bottle did I use on your hair?"

"That green one over there," was the reply.

"Oh, my! I made an awful mistake, for that is the bust developer."



BELLADONNA GROWN IN CALIFORNIA

Atropa belladonna is said to be a native of the Mediterranean countries, where it grows wild spontaneously. Some authorities declare that it is a native of other countries also, as England, though this is denied by others. The fact is several plants related to *Atropa belladonna*, and which are commonly known as deadly nightshade, have been mistaken for the true belladonna.

In 1904 a few plants of the true belladonna were started in the San Francisco Garden of Medicinal Plants in Golden Gate Park, San Francisco. The plants grew exceedingly well, with but little care, and assays made from time to time showed a high percentage of alkaloids. During the second season the shoots began to appear in late January and were in no wise injured by the few frosts which occur in the months of January and February, and in early March.

In 1907 some belladonna was grown at Salinas, California, with most satis-

factory results. Some experiments were also begun at the University of California, at Berkeley, made possible through the aid of Johnson & Johnson. The experimental results to date show that belladonna thrives well in California, with a high alkaloidal yield.

The above half-tone shows belladonna plants grown in a back yard in Salinas, California. The photograph was taken on the 8th day of July and represents plants from seed sown in the open on the 20th day of January, 1907. At this writing, July 16, most of the plants are in full bloom. In the second and subsequent seasons the belladonna is in full bloom in May or early June, depending somewhat upon the season.

It may be stated at this time that negotiations are under way to grow belladonna on a large scale in California. Fuller particulars regarding this venture will appear from time to time. In consideration of the fact that belladonna is becoming more and more

scarce, whereas the demand for this drug is constantly on the increase, the extensive culture of a high grade article is most desirable.

SAN FRANCISCO'S PROFESSIONAL SCHOOLS

The year 1906-07 was a trying one for almost all educational institutions situated in San Francisco, and especially for the professional schools. The two colleges of pharmacy in this city suffered in common with others. Persons living at a distance feared that it would be difficult to find rooms and board, that employment as relief clerks would be unobtainable, that the colleges themselves had been crippled by their losses, and that generally San Francisco was not a good place to go to. All these fears have been dispelled. Employment as relief clerks for students wishing to work a few hours each day was never so plentiful, rooms and board are easily found at prices not much more than those prevailing heretofore, while the salaries of drug clerks have materially advanced. In addition to all this there is from East to West a more urgent demand than ever before for well-educated and well-trained pharmacists. Employers are looking for men who have a college education, and the supply is not equal to the demand. Furthermore, the National and State Pure Food and Drug laws call for such constant care in the making of pharmaceuticals, such vigilance in the examination and testing of drugs and chemicals, that no drug store can be considered properly equipped that has not in it at least one person who is capable of applying the tests of the Pharmacopœia. And these laws have come to stay. They may be—probably will be—modified, but they

will never be repealed, because the people demand them. Pharmacists must adjust themselves to public sentiment, and the public expect reasonably pure drugs and medicines and reasonably competent persons to manufacture and dispense them.

GETTING READY FOR THE A. PH. A.

We learn from the "American Druggist" that all arrangements for the business sessions and entertainment features of the annual meeting and convention of the American Pharmaceutical Association, which will be held in the Hotel Astor during the week beginning September 2, are now being made by the local committee of arrangements. This committee, which is headed by Thomas Cook, of the New York Quinine and Chemical Works, and local secretary of the organization, includes the following members: Herbert D. Robbins, Dr. William Jay Schieffelin, Albert Plaut, William P. Ritchey, Charles S. Littell, Charles Loring, Henry T. Jarrett, Henry Schenck, Frank Black, John Augustus Dunn, William C. Alpers, Clarence O. Bigelow, Thomas F. Main, Henry H. Rusby, Ewen McIntyre, Joseph Weinstein, Caswell A. Mayo, Clarence G. Stone, Jacob Diner, Frank E. Holliday, William C. Anderson, Oscar W. Smith, C. R. Crosby, Henry J. Schnell, D. O. Haynes, H. C. Lovis, Albert M. Roehrig, L. N. Upjohn, William R. Kirkland, William Muir, and Otto Amend.

Although this committee has virtually completed its work in scheduling the business sessions of the A. Ph A. meeting, it is desirous of keeping its plans secret for a week or two, in the belief that it may be compelled to make some minor changes before formal announcement of the gatherings can be made.

The employés of Parke, Davis & Co., of Detroit, Mich., celebrated the fortieth anniversary of the company by attending in a body the annual excursion and picnic. This company is one illustration of a corporation which takes more than ordinary interest in the welfare of its employés.

DOES YOUR BUSINESS PAY?

Four Vital Points Which Every Druggist Should Know About His Business. Expenses and Profits. How a Knowledge of Them May Be Acquired Accurately. How This Information May Be Turned Into Money.—By Harry B. Mason, Ph. G.

There are four things which every druggist, as a commercial man, should know about his business, but vital as they are, I fear the majority of druggists are in ignorance of them.

The Four Essentials.

1. Every druggist should know his percentage expense of doing business.
2. He should know his average gross profit, estimated on the total volume of sales.
3. He should know whether certain important lines or departments, like those involving cigars, candy, and soda, are making or losing money for him, and if they are making money, how much.
4. He should know for a certainty what his total annual earnings are from the entire business.

Now why is it necessary to know these four things? Because they are absolutely fundamental to the wise and successful conduct of any business. Without such facts at command one is completely in the dark and is in no condition to guide his craft skilfully and well. He is like the physician who attempts to treat a case without first taking the temperature, feeling the pulse, looking at the tongue, examining parts of the body which may be affected, or inquiring as to the patient's symptoms.

The two cases are exactly parallel, and I do not think I need dwell further upon the comparison to force the point home.

There are hundreds of druggists in this country today who are losing

money on their business and who will not discover it until the sheriff comes along and sells them out. There are thousands who, not deceived to quite this extent, are not making anything like so much money as they fancy; and there are other thousands who might make much more than they do if they only understood the exact condition of the patient and consequently knew where and when to apply the corrective treatment.

Percentage Expense vs. Gross Profit.

Let me take up the four things which I have declared to be essential, and examine into their necessity with some detail.

The relation between the percentage of expense and the percentage of gross profit is one of vital significance. It throws a flood of light upon the business and makes improvements possible in a thousand ways. An address could be delivered on this subject alone, but I must content myself with a few observations only.

Suppose it costs 30 per cent. to do business—30 cents to sell a dollar's worth of goods. Here, then, is a fact which should be considered every time the price is established on an article or line of articles. It is of course perfectly true that one cannot always advance the selling price sufficiently beyond the line of expense. Many "patients" have to be sold at an actual loss, when the cost of selling them has been added to the cost of purchasing them. Many other articles, particularly in cities where the competition of the

large druggists and the department stores keeps prices down, have to be sold at very close margins if not at an actual loss. But above and beyond such lines, there is abundant opportunity here and there to establish selling prices which will counterbalance the losses and make the gross profit average up satisfactorily.

In another paper I have commended, and I want again to commend, the practice of a successful Detroit druggist who aims to make 100 per cent. on drugs and prescriptions and fifty per cent. on sundries. Even at that his average gross profit is but 41, the small margins or even losses on "patents" and other goods bringing down the figure greatly. It will, perhaps, be remembered that Mr. Falkenberg, the Chicago druggist, attained some notoriety in the drug journals a year or two ago by insisting that one should make 200 per cent. on his prescriptions if he desired to get an adequate reward for his time and skill, and if he wanted to have his business as whole yield him the returns that ought to be realized—and it may be said in passing that Mr. Falkenberg wasn't so far wrong as he might have been.

Applying the Element of Percentage Expense.

Returning to the factor of average percentage expense, it may be said that this should of course not be applied with hard and fast rigidity. It costs more to sell some goods than others. A rapid-selling patent medicine, permitting of frequent turnovers of capital, involving no such waste as cannot be escaped in bulk goods, and consuming little of the clerk's time in making a sale, can be handled at a much smaller expense than prescriptions, loose drugs, or even candy. Some allowance should be made for these

differences, and when it is made, it will be seen that patent medicines and similar ready-for-sale goods are after all disposed of at a larger net profit, or certainly at a smaller loss, than otherwise seems to be the case.

But despite this the small druggist has to be guided more or less clearly by his average gross profit, and he cannot follow the practice of the well-organized department store in considering each department a separate unit, with its own percentage expense and set of figures and rules generally.

It is a good idea to estimate the percentage expense in two ways: by the customary method of including the proprietor's salary among the expenses, and also without this element of cost. Often this plan is of great help. Suppose, for instance, that some article will at best pay a gross profit of but 26 per cent. Your total percentage expense, say, is 30 per cent. Your expense minus your salary is 22 per cent. Such an article, then, is seen to pay a part of your salary allowance, and not to be carried at an absolute loss to your pocketbook. This may prove a comforting assurance if the article is one which a trade demand necessitates that you keep in stock.

What the Net Profits Ought to Be.

In general it may be said that there ought to be a difference of at least 10 per cent. between the percentage expense and the gross profit—and the ideal should be to attain as nearly to the 15-per-cent. mark as possible. The average expense of the average druggist is about 30 per cent. The average gross profit is about 40 per cent. If the expenses can be screwed down a point or two, or the profit screwed up, or if both feats can be performed, so much the better. But at the least the two factors should be kept at the respectable distance apart of ten points.

As a drug business gets up into fifteen or eighteen or twenty thousand dollars a year, it ought to be practicable in most cases to have a percentage expense not greater than 23 or 25, and in the smaller towns a point lower down than that can be reached.

If the facts could be known, I have no doubt that many druggists would find to their great surprise that they were actually making much less than 10 per cent. net. A Chicago druggist, recently persuaded to estimate his percentage expense and his gross profit, was chagrined to discover that one was 32 per cent. and the other 36 per cent. Once in possession of the facts he was in position to apply corrective agencies wherever possible, and I venture to say that he will never again be lulling himself to sleep in the fool's paradise from which he was so grateful to escape.

The Calculation of Profits.

Now it must be understood that everything I have said and shall say about gross profits has reference to the profit on the sale price instead of the cost price. Expenses are always estimated from the sales, and profits ought to be estimated from them also in order to permit of ready comparisons on the same basis. There is a chance for confusion here and the point ought to be clearly realized. Suppose you pay \$1 for a certain product and you desire to make 35 per cent. on it gross. If you make the mistake of adding this 35 per cent to the cost price you will sell the article for \$1.35. Now it will cost you, let us say, 28 per cent. of the selling price to handle the article, which amounts to 39.2 cents, so that while you think you are making a net profit of 7 per cent. you are actually losing 4.2 cents on the transaction!

In this connection a few rules may be of assistance. In order to make a

profit of 16 2-3 per cent. of the sale price, add 20 per cent. to the cost; for a 20-per-cent. profit add 25 per cent.; for a 25-per-cent. profit add 33 1-3 per cent.; for a 33 1-3-per-cent. profit add 50 per cent.; for a 40-per-cent. profit add 67 per cent.; for a 50-per-cent profit add 100 per cent.

Are the Departments Making or Losing Money?

So far I have discussed the necessity of knowing the first two things in the list of four essentials given at the beginning of this paper—the percentage of expense and the percentage of profit. Now let me say a word about the remaining two. As the third essential I have stated that the pharmacist **"should know whether certain important lines or departments, like those involving cigars, candy, and soda, are making or losing money for him, and if they are making money, how much."**

As one of the editors of a pharmaceutical journal which has recently devoted considerable space to the discussion of these business topics, I have within the last year seen many letters from retailers throughout the country which have been full of significance, and which, could I quote them, would illustrate and enforce many of the points which I am striving to make clear in this paper. Several of the letters would be found freighted with meaning in this particular connection.

In one case, that of a Cleveland druggist, we convinced him from his annual statement that he was losing money constantly on both his candy and cigar departments. He had kept separate records of these two departments and of the soda business also. From the figures we found that while the cigar trade yielded theoretical profits of perhaps 25 or 30 per cent., he had actually made but 16 per cent., and that, since his percentage expense

was 28, he had lost 12 per cent.! Just where the leak was I do not know. Once in a while clerks smoke "on the house." Occasionally cigars are filched from the tops of the cases where some dealers exhibit them. In certain cities competition with the United Cigar Stores Company and other concerns brings the selling prices down below a living profit for the retailer operating under a considerable expense.

The candy department of this Cleveland druggist was seen to yield him a gross profit of only 25 per cent., and so he lost 3 per cent. on that. His percentage expense, estimated without his personal salary, was 23, so that the candy department paid little even toward his own salary, and less than nothing toward making his capital productive. It may be said in passing that bulk candy involves a bigger waste than is realized by most druggists. Clerks are often careless in weighing it, and there is a temptation to take a piece now and then, besides handing one to the customer—especially if the latter happens to be an attractive girl.

When Should a Department Be Dropped?

Now it must not be hastily assumed that the Cleveland druggist should have thrown his cigar and candy departments overboard because they failed to bring him a profit on the face of the returns. Chas. H. McConnell, proprietor of the Economical Drug Store in Chicago, whose daily sales exceed a thousand dollars, found some years ago that his soda and cigar departments were actually losing money for him, and he promptly abandoned them. But this step cannot always be taken by the small retailers. Why? Because if one department is thrown out, and something else cannot be put

in its place, the total sales are reduced and the percentage expense is consequently increased. Let me state the situation in another way: the average druggist has a stationary expense; a given department or line, unless it be that of soda, will usually require no more help and no additional expense of any kind; there really is no expense attached to it, then; and the gross profit becomes net profit—everything made is "velvet." It would therefore be unwise in most instances for the small retailer, with limited possibilities, to throw out a department which paid him only 20 per cent. unless he could put in another which paid him more. The large dealer can do this. Ordinarily the small dealer cannot.

But some one might reply to me at this juncture: If we are going to keep our departments anyway, what good will it do us to know the detailed facts concerning their rate of profit? Much good—much good. Every line and every department should realize certain returns—returns which are of course different in every case. One ought to know whether a department is "making good" or not. If it is failing to do so, systematic efforts should be made to stop the leaks and correct the situation. The clerks must be told that the department is not doing what it ought, and they should be put on the qui vive to improve matters. **Knowledge is power!**

And it must be obvious to every merchant that as few goods as possible should be sold at a profit below the percentage expense, and as many as possible above it. By no other rule can a satisfactory average be yielded. If it is necessary to carry a lot of stuff that pays indifferently, the thing to do is to expend a little gray matter in planning to put in something that will

pay handsomely and bring up the average.

Now as for the fourth essential fact which every druggist ought to know, this is in a sense confirmatory of the other three and consequently need not be discussed at length. A man should know what his annual earnings are in order that he may understand whether the business yields him as much as it should, and in order, also, that he may decide upon his living expenses intelligently. But he should know this fact **with absolute certainty**. That many druggists deceive themselves as to their income by faulty methods of calculation, or by no calculation at all, has been borne home to me after considerable observation and experience.

The Method of Bookkeeping.

Now granting the necessity of knowing the four things which I have declared to be essential to every druggist, the question arises: How may they be learned easily and simply, without expense of time and labor?

After I had read a paper on one phase of this general subject at the last meeting of the American Pharmaceutical Association, a pharmacist came to me privately and said: "I must admit that I am one of the foolish druggists who keep no business records, but my excuse is that I am busy and have no time for them." Others have expressed similar views, and there is no doubt that many druggists are deceiving themselves with the assumption that a great deal of time would be consumed in making proper records of their business operations. Still others, again, do not know how to go about the task.

I mean to outline a simple method that will not take five minutes a day, and that can be practiced in connection with the handling of customers' ac-

counts. Let me say at the outset that this plan will not please merchants who keep thorough and complete records of everything, and who use a double-entry system for the purpose. While the latter method is the ideal one, and while it is employed by all the large retailers throughout the country, I am quite convinced that it would be useless to expect the average druggist to adopt it. He will throw the whole thing aside if too much is expected of him.

Now to begin by summarizing in a single paragraph what the necessities of the case require, let me say that the only records which are absolutely essential, and to which I shall consequently confine myself in this paper, are those involving (1) the sales, (2) the purchases, (3) the expenses, (4) the inventory, and (5) the purchases and sales of departments like soda, candy, cigars, and any other line that the proprietor might want to watch for a year or perhaps constantly. This is all—and it is certainly easy and simple enough. If in addition a cash book is kept, so much the better, but I am confining myself in this paper to the absolute essentials.

Deduct the annual purchases from the annual sales and you have the gross profits. Deduct the expenses from the gross profits and you have the net profits. But you need two checks on these figures, and these are provided by the inventory and the accumulation of surplus cash in the bank or elsewhere. The inventory may show that the stock has increased or decreased, and you may consequently have made several hundred dollars more or less than you would otherwise imagine.* Any increase in the inventory should be added to the gross and net profits; any decrease should be deducted from them.

This would give you the final figures except for the additional check provided by the cash accumulations. To go back a little, we have seen that the net profits as first calculated are to be supplemented by the extent to which the stock has increased. A small portion of the year's profits, then, are represented in stock, and the remainder in cash. Now waiving the item of stock appreciation, and considering only the cash returns, it is evident that the latter must tally approximately with the money which has accumulated in the regular bank account, plus any amounts which you may have drawn out during the year in excess of your definite salary or for outside investments. Sometimes a difference is disclosed here that changes the results considerably; and indeed no druggist is in position to estimate his profits for the year accurately unless he corrects them by means of the inventory and careful cash records.

Now it is of course readily seen how the four things which I have declared to be essential can be learned from the foregoing records. (1) The percentage expense is gotten by dividing the annual expenses by the annual sales. (2) The percentage of gross profit is gotten by dividing the annual gross profits by the annual sales. (3) The necessary facts regarding the success or failure of certain departments are gleaned from the department records, concerning which I mean to say more in detail later on. (4) The total annual income is obtained by adding the proprietor's salary to the net profits of the business.

* A Toronto druggist, failing to take an inventory for two years, found that his stock had increased \$1,600. An Indianapolis druggist, on the contrary, was surprised to find last year that his stock had decreased over \$500. Many actual instances could be cited to show what fluctuations the inventory discloses, and how markedly it changes the results.

Details of the Method.

How are these records of sales, purchases, expenses, and so on to be kept? I shall not outline any hard and fast method. Each druggist may devise a plan which seems to him best and which fits most harmoniously into his bookkeeping system.

The simplest way would be to use a plain ruled book, make upright columns for the several sets of figures with the exception of the inventory, and devote each horizontal line to one day's records, having the date in the first column at the left. The columns at the end for the department statistics should each have two spaces, thus providing for both sales and purchases. The book would then look something like this, subject to such modifications as each druggist might find desirable:

Date				SALES	PURCHASES	EXPENSES	CIGARS	SODA	CANDY
	January 3	January 2	January 1	Cash.					
				Credit.					
				Total.					
				Self.					
				Clerks.					
				Misc.					
				Sales.					
				Purchases.					
				Sales.					
				Purchases.					
				Sales.					
				Purchases.					

As for the original entries, these could be treated exactly as you treat charges or credits for or against customers. Make them in a day-book, if you use a day-book; put them on the slips if you use slips. Every time you buy a bill of goods, or pay out money

for an expense, or figure up the day's sales, or do anything else falling within the scope of these business records, simply enter it as you would when a customer buys goods on credit. In posting from the day-book or the slips, carry the customers' accounts to the regular ledger, and the business records to the special ledger, giving totals only. If it takes you ten minutes every morning to do your regular bookkeeping, it won't take you three minutes more to include this special business bookkeeping. Is it not worth this slight expense of effort?

Something ought to be said in detail about these various records. Total sales for the year of course include credit as well as cash sales: how are the former to be handled? There are several methods. One would be to consider all payments of accounts as cash sales, and record them daily as a part thereof. At the end of the year the standing accounts could be deducted from those of the year before, and the decrease or increase subtracted from or added to the sales. A better way, perhaps, would be to have three spaces in the sales column, one for cash sales, another for credit sales, and a third for the totals. This method would enable you to watch your total sales from day to day and month to month.

The Department Records.

The department records it will be seen, are in part repetitions of the general records, and this would grieve the heart of the double-entry bookkeeper whose principle it is never to have the same item charged against two accounts at the same time. But as long as we understand that we are repeating charges no particular harm is done. What we are to record concerning the departments are merely the sales and the purchases. Both are recorded elsewhere against the general business,

and are only repeated separately in order that we may know how each department stands when considered by itself.

The department sales are easily arrived at, either by using a separate money drawer or cash register for each department, or by figuring up the department sales every day from the itemized slip made by the general cash register. In either case the credit sales are of course to be added so far as they fall within the different departments. The department purchase records are in the main gotten from manufacturers' or jobbers' invoices, but one must not forget also to make a charge of anything that may be taken from the general stock and used for a department, such as a sponge for the cigar counter, or a few ounces of some flavoring extract for the soda fountain.

The purchases of any department, deducted from the sales, give you the gross profits. It is not practicable for the small dealer, using the same clerks in all departments, and having other expenses common to the general business, to specialize his expense account for any one department. His only method is to apply the average expense of the entire business to the department, and judge the latter by the relation between this general percentage expense and the percentage of gross profit which the department is able to realize. Of course, as in the business at large, the figures must be corrected in the light of the inventory showing.

One or Two Points.

Now there are innumerable other things one might say with profit in discussing these various records, but I fear that I have already exhausted your patience and I must be brief. Just a few words more: Don't be deceived as to your earnings by the failure to mark off annually a depreciation in the

inventoried value of your fixtures. Ten per cent. for the soda fountain (which should also be charged up against the soda department in estimating the profits of the latter), and five for the show-cases and shelving, are the customary figures. Book accounts, too, should be subjected to the same process of depreciation if you would know exactly where you stand.

And then, in charging up expenses, be careful to include everything: proprietor's salary (\$1200, say), clerks, rent, heat, light, freight, advertising, insurance, taxes, license, and the thousand and one little items that should be considered. An interest charge is not legitimate, because you have included your personal salary in the expense account, and what you realize over that is itself the interest-earnings or dividends on your investment of capital. At the end of every year draw up an itemized list of expenditures: study it carefully, compare it with those of previous years, and see if you are not spending too much money in this place or that.

A Final Word.

Now in conclusion I want to say that the business of today is conducted in accordance with scientific principles. It is not without significance that the "World's Work," a magazine whose main purpose is to interpret American life to the American people, has a department which it calls "The New Science of Business." The old rule-of-thumb method, or absence of method, was good enough in a less strenuous time, but the man who practices it today is out of date, and unless he mends his ways he will inevitably be thrust aside in the struggle for existence. In spite of all the pessimists say, there never was a time when such opportunities present themselves as may be found today, and this is as true in pharmacy as it is in other occupa-

tions. But it is just as true that there never was a time when it was so easy to fail. This is paradoxical, but it states the fact. There are plenty of prizes, but they are captured by the men who use method on the one hand and who are possessed of brains on the other. The first is more or less easily practiced; for the acquirement of the second I am unable to suggest any ready means.—Bulletin of Pharmacy.

A PERFECT COMFORTER

We have in the advertising pages of this issue a cut of an article we feel deserves mention in these columns—The Perfection Electric Bottle. It is meritorious in that it does away with the inconvenience of having to heat water at any and all hours of the night. It is absolutely safe, inexpensive and durable, and can be used as a nursing bottle warmer as well as a foot warmer. Physicians will readily endorse it, as it produces a dry, unvarying temperature which cannot be had by the use of the old-time rubber hot water bottle. It is a local invention and industry, and should receive the support of the druggists for that reason, if for no other.

IDAHO STATE BOARD

The State Board of Pharmacy of Idaho met on July 20th at Coeur d'Alene. Five applicants were registered on credentials, and the following by examination: George O. Taylor and Anthony J. Shuffleboarger, of Wallace, and D. D. Drennan, of Rathdrum.

Efforts are being made to bring about an interchange of certificates among several of the adjacent States. There is also a suggestion of combining the Idaho State Pharmaceutical Association with those of Montana, Washington and Oregon. We shall watch this movement with interest.

Formulas

Elixir Tonic Compound

Citrate of iron and quinine..240 grs.
 Strychnine sulphate..... 4 "
 Tincture of lavender com-
 pound 15 dr.
 Caramel 2 "
 Purified talcum..... 2 oz.
 Aromatic elixir, to make.... 60 "

Mix. Dose, from one to four tea-
 spoonfuls before meals. The above
 elixir is a very pleasant and efficient
 tonic, combining the iron, quinine, and
 strychnine in an agreeable form, which
 may be diluted to any amount without
 causing the least cloudiness.

Elixir Digestionis Comp.

Papoid 2 dr.
 Diluted phosphoric acid... 2½ "
 Diluted hydrochloric acid.. 2½ "
 Aromatic solution of pep-
 sin, N. F.....28 oz.
 Tincture cardamon com-
 pound 2½ "
 Tincture cudbear 1 "
 Purified talcum 2 "
 Aromatic elixir, to make.. 4 pints

Mix.

The above is a most excellent diges-
 tive compound. The happy combina-
 tion of papoid together with the phos-
 phoric acid and hydrochloric acid com-
 bined with the aromatics make it ac-
 ceptable to the stomach and delightful
 to the palate as an after-meal digestant.

Phenol-Camphor.

Camphor 6 oz.
 Phenol 2 " by weight

Powder the camphor by the addition
 of a small quantity of alcohol or chloro-
 form and place both the phenol and
 camphor in a bottle and shake until the
 mixture becomes liquid.

The above has been found to be the
 most satisfactory proportions com-
 bining the antiseptic qualities of the
 phenol and stimulating and soothing

effect of the camphor, without the least
 caustic quality of the phenol.

Compound Syrup of Hypophosphites

The following formula is said to rep-
 resent Fellow's Compound Syrup of
 Hypophosphites.

Take of—

Hypophosphite of iron.... 40 gr.
 Hypophosphite of calcium.128 "
 Sulphate of quinine..... 40 "
 Sulphate of strychnine.... 1½ "
 Citric acid 20 "
 Water 6 oz.
 Sugar 10 "
 Tincture of lemon peel.... 8 m.
 Alcohol 1 oz.
 Syrup, ad 1 pint

Dissolve the calcium and iron in the
 water by the aid of heat; dissolve the
 citric acid in the solution; rub the qui-
 nine and strychnine with the alcohol
 and mix the solution, let it stand till
 clear, add the sugar and dissolve by
 agitation without heat, and strain. The
 appearance and taste resemble the
 preparation which it is said to repre-
 sent.

Ink for Leather or Wood

Extract of logwood.....2 oz.
 Tincture of iron.....2 "
 Tincture of galls.....1½ "
 Water 8 "
 Alcohol 8 "

Dissolve the logwood in the alcohol
 and water, add the tincture of galls and
 iron.

This ink gives an intense black to
 leather or wood if applied several
 times, and will take a fair polish if wax
 dissolved in alcohol be applied and
 rubbed after drying.

A dull finish like that of ebony may
 be obtained, from which it is hard to
 distinguish, if a heavy, close grained
 wood be used.

CALIFORNIA GARDEN OF MEDICINAL PLANTS.

This garden, located in Golden Gate Park, San Francisco, is now upon its fourth year of existence. It has, within that time created considerable interest in the cultivation of medicinal plants. It has been shown that most of the more important drug plants can be grown successfully. Among those plants which do especially well may be mentioned hyoscyamus, valerian, rhubarb, bryonia, belladonna, mints, digitalis, and others. Experiments with Alexandria senna proved a complete failure thus far. The young seedlings were promptly killed by root rot.

A State or other appropriation is essential for the more efficient operation of this garden.

The aims and purposes of the garden may be summarized as follows:

1. As a part of the public park system of the City of Francisco it is a source of instruction and edification to the public in general.

2. It is a very important source of special instruction to students of pharmacy and medicine, as well as to students in general.

3. A properly managed garden of medicinal plants is the only efficient means for developing the possibilities of the State as to the profitable culture of medicinal plants and the manufacture of pharmaceutical preparations for which drug plants are used. As already stated, the interest aroused in this subject is considerable.

4. The management of the garden should co-operate with similar other gardens in the United States and with the Department of Agriculture at Washington and its State experiment stations for the purpose of developing the economic resources of the United States.

5. The garden should serve as a depot of supply to chemical, pharmaceutical and botanical laboratories in the United States and foreign countries for research purposes and to supply the herbaria of the world with specimens.

6. It should co-operate with similar gardens and other economic gardens of foreign

countries in developing and perfecting our information regarding the profitable cultivation, the physiological action, and the medicinal value of medicinal and related plants. This co-operation should be extended especially to the Kew Gardens (including sub-stations) of England, the Jardin des Plantes of Paris, the Gardens of Buitenzorg in Java, the Berlin, Vienna and Italian gardens, and the New York Botanical Garden. Qualitative and quantitative analytical chemical work is absolutely necessary in order that the intrinsic value of drug plants intended for culture may be determined.

The following are special reasons why the Garden of Medicinal Plants should be located in San Francisco:

1. In order that students of medicine, pharmacy, and botanical science may be benefited by such a garden, it must be near at hand. San Francisco is and will, no doubt, continue to be the Pacific Coast center for colleges of science, medicine, and pharmacy. If the gardens were situated in some remote, sparsely populated area of the State, away from the environment mentioned, it would be of much less value and use scientifically, and the expenses of proper maintenance would be greatly augmented.

2. The necessary public spirit and interest for the support of such a garden is more easily awakened in a large city. This has been proven in innumerable instances, as for example, in London (Kew), Berlin, Paris, Vienna, Naples and other European cities, verified in San Francisco by the fact that the Park Commissioners have willingly set aside suitable grounds for the purpose of such a garden.

3. San Francisco and its immediate environment have the scientific laboratories, wholesale drug houses, pharmaceutical manufacturing houses, herbaria, libraries, economic gardens, etc., which form indispensable adjuncts to the proper maintenance of such a garden at a minimum expense.

4. The climatic conditions (temperature and moisture) in San Francisco and vicinity are more suitable for plant culture than the climatic conditions of any other city on the Pacific Coast. There is every reason why San Francisco should maintain the largest garden of this kind in the world.

5. San Francisco is the only city in the United States which has ready access to the botanical resources of the Orient, Australia and our new island possessions. The pos-

sibilities from these sources alone are great.

6. Lastly, the garden is already established in the city of San Francisco, has the hearty encouragement and support of botanists and pharmacists, the assurance of a hearty co-operation on the part of the Department of Agriculture at Washington, to say nothing of the local encouragement and support.

The benefits to the State to be derived from the Garden of Medicinal Plants are inestimable. From the numerous inquiries thus far received regarding drug culture, it may safely be assumed that many different species of medicinal plants will be cultivated on a large scale within the next decade. This interest is wholly due to the influence of the garden of medicinal plants since its active operation, begun in 1903-1904.

WRITES TO HIMSELF TO ASSIST MEMORY

E. T. Off, president of the State Pharmacy Board, tells a good story on one of the professors in the pharmacy college of the University of California, a most methodical man who is no longer as young as he used to be. Off tells the tale thuswise:

"I was talking to the professor the other day when he said to me, almost with tears in his voice:

"'Off, I'm losing my memory. It's a fact, and I can't escape it. I have tried all sorts of devices to assure my remembering engagements, but all failed until I finally hit upon the plan I'm following now.

"'From my boyhood, Off, I was trained alway to answer my correspondence. That I never forget. So now, when I find my memory at fault, this lifelong habit stands me in good stead.

"'I always carry in my pocket a bunch of postal cards, addressed to myself. Now, when anything comes up that I want to remember later, I merely jot it down on one of these cards and mail the card.

"'The scheme works finely. I haven't missed an engagement since I

adopted the postal card system, though if I were merely to make a note of the matter in a memorandum book I would be certain either to lose the book or to forget to look at it.'"

COLLEGE OF PHYSICIANS AND SURGEONS, PHARMACY DEPARTMENT

The halls about the college since the commencement, which took place in May, have been comparatively quiet. During the winter and spring months every one was on the jump; all were busy, and things buzzed and hummed; all was life with the young blood which made up the student body of the different departments of medicine, dentistry, and pharmacy. Now that all these students have gone into different vocations, some to help out their financial end, and others to rusticate and take life easy during the summer, preparatory for the coming term, makes it seem like "some banquet hall deserted." However, a few remain to take up clinical work in the medical and dental departments and are kept busy during the mornings in the medical and all day in the dental clinic. Two of our pharmacy students are devoting their mornings helping out in the college dispensary and getting the very practical side of prescription dispensing, and taking advantage of individual quizzes.

The California College of Pharmacy announces that it will provide a course of instruction to fit persons to conduct the analyses required under the National and State Pure Food and Drugs Law. The same college also announces that a course of lectures will be delivered to the senior and graduate classes on "The Business Side of Pharmacy."

Modern Drug Store Advertising

There is no form of advertising so sound in principle and so readily adaptable to the commercial requirements of the pharmacist as the system embodied in The Direct Appeal.

As the title implies, this system brings the advertiser in direct and personal touch with his prospective purchaser, and from the standpoint of economy and effectiveness, it readily takes the lead over the older methods.

It reduces to a minimum "random firing" in advertising, especially where the effort is confined to a limited area, as is the case with the average drug store, since the advertiser is likely to be acquainted with his customers and have some idea as to their wants.

The method has given birth to some of the largest mercantile establishments in the country, namely, the mail-order houses, and every druggist can, by a glance over his daily mail attest to the popularity of this system.

The foremost desideratum in the launching of this campaign is the mailing-list; indeed, here is the vulnerable point, for as much money can be wasted sending letters to unlikely customers, as can be wasted through other methods of advertising.

The mailing list must be compiled with care and discrimination. As fruitful sources of reference in this compilation, are the telephone directory, the city or county directory, the voting register and precinct index, the store-ledger index, the personal acquaintance of the advertiser, and the town newspaper.

An arrangement which gives gratifying results to the writer, is the card-index. A No. 2 wooden vaseline box answers the purpose nicely; invest 45 cents in an alphabetical card-index, cut up slips of paper to fit and you have a cabinet as serviceable as the \$4.50 article.

The slips should have the name across the top, the address, occupation, place of business or employment, financial standing, whether the person is young, middle-aged, or elderly, and what information may be available concerning other members of the family.

For general reference, all of this information will be found invaluable. The draft-

ing of the letter is next considered. Here the typewriter machine and the mimeograph are practically indispensable. Every up-to-date druggist should have a typewriter as part of the store equipment. The letter must be a personal one setting forth certain facts which you believe will interest the person addressed. It should be brief, consisting preferably of one sheet containing about twenty-five lines of single-spaced matter, so arranged as to present a pleasing effect. The completed letter is then transcribed on the mimeograph stencil. This work can be given out or printed, but I have found a mimeograph an excellent investment. I have an Edison Rotary machine, costing thirty dollars, which turns out a thousand splendid copies in an hour. One stencil will print two thousand copies or more.

The copies may or may not contain the address and salutation; the former is to be preferred, although it involves the labor of filling in. The signature may be a facsimile of the original done with a rubber stamp. Persistency is the key-note to this mode of advertising as it is with all others. The letters should be sent out at least once a month, and may enclose other ad matter or statement of account. A record in the card-index should be kept of all letters sent out.

The envelopes should bear the address and business of the sender, and should be sealed and fully prepaid.

FRED I. LACKENBACH.

San Francisco, July 24, 1907.

Editor Pacific Pharmacist: I had a peculiar experience in this store which I think will interest your readers, as it shows how careful a druggist must be in ascertaining, in doubtful cases, for what purpose the article called for is to be used.

A young lady handed me a slip of paper on which was written: "Kenyon's Corrosive Tablets," very plainly, and in an elegant Spencerian hand. This was a new one on me, but by a little questioning I found out that they

were to be used for sore throat, and subsequently, that the patient had a very bad cold. This showed that Kenyon's Coryza Tablets were wanted. My diagnosis proved correct.

Yours truly,

A. RITTER.

1429 Haight St., San Francisco.

Generally speaking, it is not the function of the pharmacist to make diagnoses of diseases or to ascertain for what purpose a medicine is to be used. But in cases of this kind, where powerful or poisonous substances are asked for without prescription of a physician, it is certainly the duty of the pharmacist to ascertain the purpose for which it is to be used. If pharmacists were more careful, some of the numerous suicides might be prevented.—Ed.

WORK FOR AMENDMENT OF SHERMAN LAW

By W. B. Cheatham

In September the National Civic Federation is to hold a meeting in Chicago; the Sherman law (under which the recent injunction was granted), its operation, and the necessity of amending it, will be the principal topics of discussion.

To this gathering the governors of all the states have been requested to send representatives of all the commercial organizations in their states; the N. A. R. D. will be ably represented at this meeting, and there can be no question about the certainty of concerted effort to amend the law.

President Roosevelt in recent public addresses has said that agreements between railroads, as to rates, under proper restrictions, would be advisable, and he does not appear to object to railroads "merging their interests" under proper restrictions. Railroads must make expenses and earn a reasonable interest on the money invested in them in order that the public may receive safe and economical service.

The railroads are public service cor-

porations, and many of them received grants of valuable land and money from the government, and that in conjunction with private capital made them possible; and no reasonable human being will deny them the right to protect their investment by allowing them to establish rates sufficiently high to accomplish it.

It may seem a far cry from railroads to drug stores, as the drug store is such a little thing compared with a railroad, but did you ever stop to think what would happen should every drug store close up for a single week, and refuse to serve the public? and mind you, the drug stores received nothing from the government in the way of grants or money. They are operated on private capital by the hardest worked men in the retail business, and every store as soon as it is open becomes an emergency station which the public makes free use of. Let the more favored railroad cripple a human being and the chances are the cripple will be rushed into the drug store before being taken to any other place, and all the goods and appliances for the relief of suffering must be produced, and are often produced without compensation, which is in all such cases a secondary consideration.

Does the public demand that the laws shall be operated so harshly against these public emergency stations that thousands of them must close in order that a few large department stores, mail order houses, and large cut-rate stores may do all the business?

When Jones's child swallows poison by mistake, must he write to a mail order house for an antidote? Will the youngster be taken to a department store for medical aid while waiting for a doctor? Will it be carted miles to one or two big cut-rate drug stores?

The nearest druggist will be appealed to, and if Jones desires to have a drug store close by he will be interested in seeing that the druggist gets a "Square Deal" under the law so he can remain in the business, and a square deal means that he must be allowed protection in his effort to earn sufficient to pay him a fair return on his investment and for his knowledge and labor.

Now then stand up for your rights, and demand that the law be amended, begin a campaign of education, get the public with you, put the proper value on your commercial and professional standing in your community, write your Congressman and U. S. Senator, don't be afraid of them, your vote counts and your influence as well. Write now and keep on writing until Congress meets, then keep it up until relief is had.

See your neighboring retailer, show him how the law can be construed to put him out of business, and get him to write also demanding that it be changed.

Does any one suppose for a minute that there is a Congressman or United States Senator who is so dense that he cannot be shown that the Sherman (law) net has been drawn so tight that the meshes are calculated to hold thousands of retailers as food for the whales (mail order houses, department stores, and the big advertising cutters).

Is there one of them who does not know that these same retailers are the life of the towns and cities where he periodically appears and expounds to his "Fellow Citizens" the beauty of living under the Stars and Stripes that stand as the emblem of protection to all who seek life, liberty, and happiness? Try him with a letter. He is just as sensitive about the demands of the voters as a member of the town council or state legislature.

STATE BOARD REGISTRATIONS

The State Board of Pharmacy is in session as we go to press. They have finished their examinations at Los Angeles and San Francisco. The following persons have been registered:

Licentiates on Credentials

Horace W. Austin, Stephen E. Batcheller, H. S. Blachly, Frederick P. Burnham, Geo. H. P. Carter, George Crocker, L. G. Demert, Fred J. Fehrensens, E. E. Green, W. I. Hawley, John E. Hughes, R. B. King, R. L. Kruger, F. T. Kuenster, J. S. Macdonald, R. F. S. Puck, John F. Schwab, Jesse A. Twing, Wm. D. Van Winkle, Perry Weed.

Licentiates by Examination

Clinton Bertram Afflerbaugh, J. A. Amundson, W. T. Boyd, F. E. Butin, H. L. Burum, Harry D. Crutcher, Vaughn R. Francis, Ernest H. Hall, William G. Hanson, Edwin B. Hixson, Merlin Wm. Hixson, H. G. Hollmann, F. King Joslyn, Arthur Henry Kruell, Wm. John LaLonde, Herbert W. Lewis, Charles J. Magnell, W. L. Morgan, John H. Niemes, William Nelson, George Edmund Parker, Robert Rowley, George Q. Pease, M. D. Pratt, J. Nelson Scott, Edmund E. Slayton, D. R. Terwilliger, Fred West, L. N. Wood, Fred H. Roberts, Charles Waldemar Shatia, Henry C. Shippee, R. C. Silvernale, Wm. E. Weischendorff, Harry F. Wiggins, Charles F. Worrall, Geo. K. Woollen, Herbert L. Noxon, Harry P. Algar, Julius E. Brenner, Willard E. Burch, Carl Herbert Conradi, F. W. Dessel, Asa S. Fuller, Henry Hersch Hart, Morris Philip Kaufman, W. B. Latimer, Edgar J. Luttrell, Frederick Lyne, Chas. L. May, Albert Munro Parker.

Assistants

Frank Arrigo, Jr., O. H. Duvall, Tom J. Armstrong, Ralph T. Duncan, Claude T. Headen, Clarence L. Johnson, Joseph J. Arnold, Charles P. Cipolla, Frank A. Hoffman, George Huber, Francis F. Johnson, V. J. Moore, Henry H. Norton, Roy Jacob Schoen, Frank D. Tallman, Don Q. Aber, Chas. Randolph Boyd, F. D. Fleming, H. H. Sutherland, Walter Harry Wiseman.

The next examinations will be held at Los Angeles, October 9, and San Francisco, October 14, 1907.

THE EARLY HISTORY OF THE CALIFORNIA PHARMACEUTICAL SOCIETY

By James G. Steele

All records of the **twelfth annual meeting** are lost. Through the year, however, monthly meetings of the society and college were held. The following papers were read and presented by members: On "White Pinus Canadensis," by S. A. McDonnell; on "Syrup Superphosphate of Iron and Aitkens' Syrup," by Emlen Painter; on "Berberis Aquifolia," by E. W. Runyon; on "Syrup of Ipecac," by P. L. Vreeland; on "Diluted Phosphoric Acid," by E. A. Schreck; on "Repercolation," by A. L. Lengfeld; on "Compound Syrup of the Hypophosphites," by P. L. Vreeland; on "Ethyl Iodide," by A. L. Lengfeld; "Syrupus Ferri Iodidi," by E. W. Runyon.

The **Thirteenth Annual Meeting** was held January 12, 1882. Eighteen new members were elected. The following were elected officers for the ensuing year:

President.....Emlen Painter
First Vice-President.....W. M. Searby
Second Vice-President.....James Topley
Secretary Fred Grazer
Treasurer.....Wm. J. Bryan
Librarian and Curator.....P. L. Vreeland
Editor.....W. M. Searby

Trustees—John Calvert, J. H. Dawson, F. Grazer, D. W. Kirkland, S. A. McDonnell, Emlen Painter.

The Faculty of the College were:
Wm. T. Wenzell....Professor of Chemistry
Wm. M. Searby.....
.....Professor of Materia Medica
H. Behr, M. D.....Professor of Botany
E. W. Runyon.....Professor of Pharmacy
Emlen Painter.....Dean of the Faculty

In the president's report occurs the following quotation from the Constitution of the society:

"First. To improve the science and art of pharmacy by diffusing knowledge, fostering pharmaceutical literature and stimulating discovery and invention in the several departments of the drug business.

"Second. To confer together at stated periods for a general supervision of the drug business, for social and scientific culture and for the promotion of harmony and friendliness among the members.

"Third. To stimulate the younger members and apprentices to a proper course of study, by giving instruction through a series of lectures and practical demonstrations."

From the report of the Secretary of the Board of Pharmacy there was shown to be 120 pharmacies and 159 pharmacists to be registered under the Pharmacy Law. There were read and presented during the ensuing year the following papers:

On "Roots of Glycyrrhiza Lepidota," by W. T. Wenzell; "Flour Paste," by E. W. Runyon; on "Pharmaceutical Novelties," by E. A. Schreck; on "Spigelia," by W. M. Searby; on "Pharmacy in Spain," by E. W. Runyon; on "Quillaine," by S. A. McDonnell; "Emulsion of Cod Liver Oil," by F. A. Grazer; on "Syrups of the Pharmacopoeia," by P. F. Vreeland; on "Cerates of the Pharmacopoeia," by F. A. Grazer; on "Pills of the Pharmacopoeia," by Saml. Oberdeener; on "Materia Medica for Pharmacists," by W. M. Searby.

From the report of the secretary, it seemed the college had graduated

fifty-two young pharmacists, and there were twenty-nine students attending college. Also that there were in good standing eighty-four members of the California Pharmaceutical Society.

At the pharmaceutical meeting held July 13, 1882, Professors Painter and Wenzell were appointed delegates of the society and college to the convention of the American Pharmaceutical Association to be held at Niagara Falls in September.

Professor Wenzell read a paper on the preparation of phosphoric acid by the action of moist air on sticks of phosphorus placed on a perforated diaphragm of vulcanized rubber, and enclosed in a glass or porcelain vessel, partly filled with water, so as to leave the sticks exposed to air and water. The vessel is closed by means of plate glass, a small hole being left for the admission of air. The phosphorus is thus oxidized into phosphoric acid. The apparatus was shown in operation.

Professor Wenzell presented the college with a full set of bottles and reagents.

Professor Runyon at the meeting held in October, stated that he had received a letter from ex-President Bedford, of the American Pharmaceutical Association, in which he stated that the meeting at Niagara Falls had been a very successful one, and that at no distant day the association would meet at San Francisco.

At the pharmaceutical meeting held November 20, 1882, President Painter said that the principal subject for consideration was the purposed building for the College of Pharmacy. Mr. Calvert called the attention of the meeting to investigations on the hydrocarbon "Abietine," by Mr. Thorp in England, and Professor Wemple, of Virginia, both of whom mentioned in flattering terms Professor Wenzell's original

paper on the subject. Professor Searby read a very interesting paper on "The Decomposition of Potassium Iodide by Spirit of Nitre."

It was noted that the graduates in their "Theses" submitted showed evidences of increasing industry and research.

The **Fourteenth Annual Meeting** was held on January 11, 1883. Reports were received from officers and committees. Professor Searby reported on the college building in course of erection on Fulton street.

The following officers were elected:
 President.....Emlen Painter
 First Vice-President.....F. C. Keil
 Second Vice-President.....E. W. Runyon
 Secretary F. Grazer
 Treasurer.....E. A. Schreck
 Librarian and Curator....E. Happersberger
 Editor.....John Calvert
 Board of Trustees—John Calvert, J. H. Dawson, F. Grazer, F. C. Keil, D. W. Kirkland, S. A. McDonnell, E. Painter.

The **Sixteenth Annual Meeting** was held on November 12, 1885.

The reports of the various officers were read and accepted. The following officers were elected:

President.....Wm. M. Searby
 First Vice-President.....H. Behr, M. D.
 Second Vice-President.....F. A. Grazer
 Secretary.....C. M. Troppmann
 Treasurer.....E. A. Schreck
 Librarian.....A. Scholl, M. D.
 Editor.....Wm. T. Wenzell
 Board of Trustees—J. Calvert, F. C. Keil, John H. Dawson, E. Joy, J. J. B. Argenti, J. Topley, C. M. Troppmann.

From the report of President Searby I take the following:

"To the members of the California Pharmaceutical Society and College of Pharmacy:

"I am pleased to be able to report that the year which has just closed has been one of satisfactory progress to both society and college. Chiefly through the efforts of our secretary, attention has been drawn to the Associa-

tion, and its claims upon the pharmacists of this Coast have been acknowledged by a considerable number who have now for the first time become members. Among these, we are glad to welcome many country druggists, whose interest in pharmacy will undoubtedly be quickened by their being identified with an organization which we believe fairly represents our profession in this State.

"Now that we have so many country members, it becomes more than ever a question how their presence at our pharmaceutical meetings can be secured. As compared with Eastern organizations, the attendance at our meetings is good; but still it is almost entirely confined to those living in and near the city. The benefits of the society are enjoyed much more largely by those who attend the meetings, because at all of them many valuable practical suggestions are made which do not appear in print. I trust that our country members will bear the society in mind and make some effort to meet with us occasionally.

"The condition of the college is hopeful. This year has witnessed the full inauguration of the long contemplated feature of a preliminary examination. It required some courage on the part of the trustees to announce to all would-be students that they must at least have mastered the elements of a common school education before they could enter the college. Experience has taught us that those who stand very low in this respect fail to reap the advantages for which they pay. They are not able to receive, except to a limited extent, the instructions of the professors. This being the case, it is only an act of justice to decline to receive their money, until, by farther schooling and mental training, they have opened wider the chan-

nels of inter-communication between themselves and their teachers, whereby the instructions of the latter may be apprehended by the understanding and retained in the memory."

From the report of the Board of Trustees, it appeared that the number of students in attendance at the college were 49; in the junior class twenty-four, and in the senior class twenty-five.

The **Seventeenth Annual Meeting** of the society and college, was held at the college building on Fulton Street, on November 11, 1886.

President Searby reported partly as follows:

"The question of pharmaceutical legislation has received a good deal of attention, particularly since the Pharmacy Act of 1872 was repealed by the last Legislature. A committee has been at work endeavoring to find out the views of the retail druggists, so that a bill may be framed that shall be heartily supported by the pharmacists of the State, with a view to its presentation at the next session of our Legislature."

From the treasurer's report it appeared that the new college building cost something over \$6000.

The delegates to the meeting of the American Pharmaceutical Association, at Pittsburg, Pa., Messrs. Painter and Runyon reported to the meeting, in part, as follows:

"The committee attended all the sessions and were well received by those in attendance. It gave us great pleasure to represent a body that stands so well with the Association as does the California Pharmaceutical Society."

The secretary reported a membership of 160. The following officers were elected to serve the ensuing year:

President.....F. C. Keil
First Vice-President.....H. Behr, M. D.

Second Vice-President.....W. T. Wenzell
 Secretary.....C. M. Troppmann
 Treasurer.....Henry Michaels
 Librarian.....Miss J. E. Barbat

Trustees—J. J. B. Argenti, J. E. Barbat, John Calvert, J. H. Dawson, E. Happersberger, W. M. Searby, C. M. Troppmann.

With a view to interest the druggists of the State in the society it was resolved to hold semi-annual meetings at outside cities, commencing with Sacramento.

The **Eighteenth Annual Meeting** of the society and college was held on November 10, 1889. The officers were re-elected with the exception of the Board of Trustees, who were as follows: John Calvert, D. M. Fletcher, W. M. Searby, J. E. Barbat, J. J. B. Argenti, C. M. Troppmann, Emil Happersberger.

The **First Semi-Annual Meeting** of the society was held at Sacramento, May 9 and 10, 1888. A full representation were present. The usual speeches of welcome were made and the customary responses offered to the mutual satisfaction of all. Thirty new members were elected. Professor Searby read a very interesting paper entitled "Changes that I Have Witnessed in the Retail Drug Business During the Last Forty Years." The paper was received with thanks and referred to the publishing committee.

The following papers were read and presented to the meeting: On "Seidlitz Powders," by S. A. McDonnell; "Manufacture of Hydrocyanic Acid," by C. L. Morgan; on "The Oaks of California," by James G. Steele; "Preparation and Application of American Isinglass in the Lowenthal Process for the Estimation of Tannic Acid," by Professor W. T. Wenzell; on "Disguising the Bitter Taste of Quinine," by Valentine Schmidt; "The Microscope in Pharmacy," by Henry Barbat; "Analyses of Teas," by Alfred Gros;

on "Syrup of Rhubarb," by Professor Runyon.

A committee on revision of the pharmacopœia was appointed: Messrs. Ray, Bowman, Topley, Steele, and Morgan.

A letter was read by Professor Searby in regard to the meeting of the American Pharmaceutical Association in San Francisco, in 1889.

The committee on "Queries" reported and presented a list which were severally accepted by different members. The Sacramento druggists treated them at the meeting to a carriage drive and afterwards to a collation, which were much enjoyed and appreciated.

A valuable paper on "Chinese Pharmacy" was not read, owing to lack of time, but referred to the publication committee and afterwards printed in the "Proceedings."

The **Nineteenth Annual Meeting** was held in the college building on the evening of November 8, 1889. The president's report dwelt upon the continuing prosperity of the society and college. The secretary reported a membership of 159.

The officers elected were:

President.....S. H. Melvin, M. D.
 First Vice-President.....F. E. Ray
 Second Vice-President....S. A. McDonnell
 Secretary.....F. A. Beckett
 Treasurer.....Henry Michaels
 Librarian and Curator..Josephine E. Barbat
 Editor.....Wm. M. Searby

Trustees—John Calvert, J. J. B. Argenti, J. E. Barbat, J. H. Dawson, F. Grazer, F. C. Keil, Valentine Schmidt.

At the meeting of the society held February 14, 1889, the approaching meeting of the American Pharmaceutical Association was introduced and discussed. Various plans were proposed to interest our Eastern brethren and secure a good attendance.

The following committee of arrangements was elected by ballot: Messrs. Calvert, Dawson, Searby, Melvin, Schmidt, Steele, Wright.

This committee afterwards organized and elected as president, Dr. Melvin; treasurer, Val Schmidt; and secretary, James G. Steele.

D. D. Hunt and President Melvin called attention to a certain bill that was before the Legislature affecting pharmacists.

At the meeting held May 23, 1889, the chief business transacted was in connection with arrangements for the meeting of the American Pharmaceutical Association. The following were appointed delegates from the college; Messrs. Devine, Calvert, Melvin, Runyon, and Searby; from the society: Messrs. Steele, Schmidt, Ray, Bayly, and Wenzell.

The **Thirty-seventh Annual Meeting** of the American Pharmaceutical Association commenced in Eureka Hall, Odd Fellows Building, corner Seventh and Market streets, San Francisco, on Monday, June 24, 1889.

President Alexander called the meeting to order at 3 p. m. Prayer was offered by Rev. W. H. Scudder, after which E. B. Pond, Mayor of San Francisco, was introduced and gave the address of welcome on behalf of the city.

Dr. Melvin, the President of the California Pharmaceutical Society, was introduced by President Alexander. Dr. Melvin made fitting remarks in response to the addresses of his honor, the mayor, followed by Albert E. Ebert, of Chicago, on behalf of the American Pharmaceutical Association. President Alexander read his annual report which was well received and referred to a committee. From the report of the secretary, J. M. Maisch, and the treasurer, S. A. D. Shepard, the finances of the Association were shown to be in a satisfactory condition. There were 116 new members elected, making the total membership 1264.

The following were elected officers in the customary manner:

President.....Emlen Painter
First Vice-President.....Karl Simon
Second Vice-President.....Wm. M. Searby
Third Vice-President.....J. W. Eckford
Treasurer.....S. A. D. Shepard
Permanent Secretary.....J. M. Maisch
Local Secretary.....E. W. Runyon
Reporter on Progress of Pharmacy....

.....C. Lewis Diehl
Members of the Council—Leo Eliel, W. S. Thompson, John H. Dawson.

Many interesting and valuable papers were read, some on account of their length only by title, and all referred to the publishing committee. Papers were contributed by Messrs. Searby, Steele, Calvert, Wenzell, and others of the California Pharmaceutical Society.

The local committee entertainments provided for the enjoyment of all visiting members and their friends. On Monday evening a social reunion and reception in honor of our visitors was held in the spacious parlors of the Palace Hotel. On Tuesday morning carriages were provided and the visitors were taken through Golden Gate Park to the beach, lunching at the Cliff House, and returning to their respective hotels in time for dinner.

A banquet was given Wednesday evening at the Palace Hotel, the tables being finely decorated. Dr. S. H. Melvin, President of the California College of Pharmacy, presided. Quite a number of toasts were given and responses made.

On Friday afternoon the Association and visitors made a trip to Oakland and were entertained by the Alameda county druggists.

Saturday morning closed the week's entertainment with an excursion around the bay of San Francisco in the steamer James M. Donahue. A lunch was served on board, speeches were made, farewells taken and all ex-



pressed themselves pleased and highly entertained.

At the meeting of the California Pharmaceutical Society held on the evening of August 8, 1889, the report of the committee on entertainment of the American Pharmaceutical Association was read.

The report showed the amount collected as \$3,154.90, disbursements \$2,933.89; leaving a balance of \$221.17 in the hands of Mr. Schmidt, the treasurer of the committee.

On motion it was resolved to turn over the balance to the library committee for the purchase of books for the library.

Mr. Calvert drew the attention of the meeting to the convention for the revision of the U. S. Pharmacopœia to be held in Washington the following May.

Three delegates and three alternates were elected to represent the society and college. Delegates, Emlen Painter, W. M. Searby, and Dr. R. G. Eccles; for alternates, Dr. S. H. Melvin, E. W. Runyon, and W. T. Wenzell.

The **Twentieth Annual Meeting** was held on November 14, 1889, in the college building on Fulton street, President Melvin presiding. I take the following from the president's report:

"In obedience to instructions of your trustees, the legislative committee revised the bill for an Act of Pharmacy, and either eliminated or modified such features of the bill as seemed to meet with most opposition by those who secured its defeat in the Legislature of 1886-7, with the hope and belief that its former opponents would cease their hostility to it.

"I refer with pleasure to the most interesting event of the year to the pharmacists of the Pacific Coast, who availed themselves of the privilege of attending the sessions of the American Pharmaceutical Association which met

in this city on the 24th of June last.

"We hail with pleasure indications of an increasing interest on this Coast in the science and art of pharmacy, which interest was considerably stimulated by the recent meeting of the American Pharmaceutical Association. The intelligent public realize that it is quite as important for the pharmacist to be mentally equipped for the practice of his profession as it is for the physician to be learned in his; in fact, the success of the practitioner and the welfare of the patient are alike dependent upon the intelligence and conscientiousness of the pharmacist." The secretary reported an increase in membership.

The following officers were elected:

President.....	Dr. S. H. Melvin
First Vice-President.....	F. A. Beckett
Second Vice-President.....	F. E. Ray
Treasurer.....	H. Michaels
Librarian and Curator.....	H. E. Besthorn
Editor.....	W. M. Searby
Board of Trustees—John Calvert, J. H. Dawson, F. T. Green, F. C. Keil, James Maclise, Val. Schmidt.	

At the meeting held February 6, 1890, the death of President Painter, of the American Pharmaceutical Association, was announced and speeches made in his honor by various members. Appropriate resolutions "In Memoriam" were introduced and adopted. Mention was made of the fine portrait of Professor Painter that had been presented to the college by ex-President Alexander at the time of the annual meeting of the National Association in June, 1889.

At this meeting Professor Searby read a paper on "An Improved Process for Making Compound Cathartic Pills," with an exhibit of pills made after his formula.

Various statements were made as to progress in experiments conducted by the "Revision Committee," pertaining

to the work allotted the Pacific Coast members.

At an adjourned meeting, held on February 27, 1890, various topics were discussed and plans suggested as representing the views of Pacific Coast pharmacists on the revision of the U. S. Pharmacopœia.

Ten "queries" pertaining to this subject were presented to the meeting and met with considerable discussion.

A paper was contributed to the meeting by Professor Searby on "Radam's Microbe Killer," enclosing an analysis of the "remedy" by Professor Wenzell. Professor Wenzell presented a paper on "The Expansion of Fixed Oils."

Professor Searby presented a paper entitled "Shall the New Pharmacopœia provide for the standardization of Galenical Preparations," and Geo. J. Harvey read a paper on "An Improved Process for Making Spirit of Nitrous Ether." The process was afterwards introduced into the U. S. Pharmacopœia.

The secretary reported the membership as over two hundred.

The **Second Semi-annual Meeting** of the society was held at the Hotel Vendome, San Jose, on Friday and Saturday, August 29 and 30, 1890.

A large and enthusiastic attendance was noted. Dr. Melvin presided and made a response to an address of welcome by the mayor of San Jose. The report of the committee on revision of the pharmacopœia was presented by Professor Searby. He stated that he was one of the one hundred and seventy delegates from one hundred and ten bodies meeting in Washington, D. C., May 7, 1890.

The chief subjects of controversy in the meetings of the convention seemed to be "standardization" and "weights and measures." Ten "sections" were presented to the convention and severally discussed by the convention.

The section 3 "Assay Processes for Galenical Preparations," elicited much discussion. Section 10 was adopted to read as follows: "It is recommended that solids be weighed and liquids be measured, and that the metric system alone be used."

The president presented a voluminous report in which he dealt with various "burning questions," such as "Preliminary Education," "Length of College Course," "Curriculum," "Rate-cutting in Drug Stores," "The new Pharmacy Law of California," "Mistakes in Dispensing," etc.

The following were elected officers for the ensuing year:

President.....	John Devine
First Vice-President.....	F. A. Beckett
Second Vice-President.....	F. T. Green
Secretary.....	D. D. Hunt
Treasurer	Adolph Mack
Trustees—J. H. Dawson, F. T. Green, F. C. Keil, Valentine Schmidt, C. A. Seifert, C. E. Worden, S. H. Melvin.	

Papers were presented as follows: "Some Ointments of the Pharmacopœia," by John Devine; "Chloride of Zinc as an Escharotic," by S. A. McDonnell; on "Extract of Wild Cherry Bark," by John Devine; "Specialties vs. Profits," by A. Mack. (On this last paper of Mr. Mack, a long and spirited discussion ensued.) On "Digestive Ferments," by H. F. Meier; "Corrosive Sublimate in Presence of Essential Oils," by S. A. McDonnell; "The Microscope as an Aid to Pharmacists," by A. B. Breckenfeld; "Trade Interests, a statement from the San Francisco Retail Druggists' Association," by James G. Steele, secretary. By this report it was shown that there were 165 pharmacies in San Francisco. The association had been in existence six years. Prices were "held up," and cutting was unknown. The schedule or price-list had been revised four times and contained over 900 articles. The affairs of the association were con-

ducted by an executive committee of ten elected at the annual meeting of the association, which on organizing, elected their own president, two vice-presidents, secretary, and treasurer. The members of the executive committee were: F. C. Keil, R. E. White, S. A. McDonnell, Valentine Schmidt, John Devine, L. R. Ellert, James G. Steele, R. W. Coffin, C. A. Bayly, and Wm. M. Searby.

The **Twenty-first Annual Meeting** was held on November 20, 1890, at the college building, 113 Fulton street. Reports from officers of the society and from the dean of the College of Pharmacy were read. It was shown that both institutions were in a flourishing condition. The election of officers for the new year was held and upon balloting in the usual manner, the following were elected:

President.....S. H. Melvin, M. D.
 First Vice-President.....I. D. Holden
 Second Vice-President.....John Devine
 Secretary D. D. Hunt
 Treasurer.....A. Mack
 Editor.....Wm. M. Searby
 Librarian and Curator.....A. C. Zeig
 Trustees—J. J. B. Argenti, J. H. Dawson,
 John Devine, Valentine Schmidt, F. C. Keil,
 C. E. Worden, J. Young.

It was resolved to hold the next semi-annual meeting in Stockton.

The **Third Semi-annual Meeting** was held in Stockton, May 21 and 22, 1891, Masonic Hall, the largest attendance being present that had yet met at any of these gatherings. A large party of members, their wives, and friends, had arrived by boat from San Francisco. Many delegates had also come from the adjoining cities to participate in the deliberations and festivities, and when the first session convened at 1:30 p. m., on Thursday the 21st, as pleasant and intelligent looking a body of members was present as could have come together in any part of the State.

The meeting was called to order by

President Melvin, many new members were elected. The president reported satisfactory progress of both society and college.

The following papers were read: "Pharmacy from a Commercial Standpoint," by I. D. Holden; "A Simple Way of making Simple Syrup," by Wm. M. Searby; on "Solution Aluminum Aceto-tartras," by S. A. McDonnell; on "The Relations of the Pharmacist to the Manufacturer," by C. E. Worden; "Personal Suggestions on Official Formulas," by Valentine Schmidt; on "Keeping up Stock in Drug Stores," by S. A. McDonnell; on "Tincture of Aconite," by John Devine; on "Botany, as relating to Pharmacy," by J. A. Sanford; on "Rhamnus Californica and Rhamnus Purschiana," by Wm. M. Searby; on "Business Topics," by Adolph Mack; on *Helenium Puberulum*, by A. G. Guttierrez.

The **Twenty-second Annual Meeting** was held in San Francisco, November 12, 1891.

Dr. Melvin, the president, stated in his report that the membership of the society was 226.

"Our semi-annual meetings for the presentation of scientific papers, the interchange of views on subjects connected with our profession, and for social enjoyment, have met with favor by many of our members. The one held in Stockton in May last, was largely attended, much interest was manifested, a number of valuable essays were read, and the discussion elicited by them entertaining and instructive. I venture to express the hope that you will continue to hold these meetings, and that each will prove to be more instructive and enjoyable than its predecessor."

Thirty-three young men graduated from the College of Pharmacy at the commencement held the previous June.

Notice was taken of the resignation of Professor E. W. Runyon from the chair of pharmacy in the college and the appointment of H. F. Meier to be his successor.

The following were elected officers for the ensuing year:

President.....John Devine
 First Vice-President.....F. A. Beckett
 Second Vice-President.....F. T. Green
 Secretary.....D. D. Hunt
 Treasurer.....A. Mack
 Librarian and Curator.....A. C. Zeig
 Editor.....John Devine
 Trustees—C. A. Seifert, F. T. Green, C. E. Worden, F. C. Keil, Valentine Schmidt, J. H. Dawson, Dr. S. H. Melvin.

It was resolved to hold the fourth semi-annual meeting in Los Angeles.

A banquet under the auspices of the society was held on the evening of December 3, 1891, in the California Hotel. S. A. McDonnell filled the position of master of ceremonies acceptably, and called upon various members to reply to toasts and sentiments. The following made responses: Dr. S. H. Melvin, Professor W. M. Searby, I. D. Holden, James G. Steele, Adolph Mack, Dr. Wood, H. F. Meier, H. F. Wynne, S. A. McDonnell, C. E. Worden, L. R. Ellert, William Geary, Mr. Osgood, and E. W. Runyon. Ninety guests were present.

The **Fourth Semi-annual Meeting** was held in the large reception room of the Hotel Westminster, Los Angeles, on Monday, Tuesday, and Wednesday, May 23 and 24, 1892. In the absence of the president, Mr. Steele was called to preside.

Mr. Worden read a report from a committee appointed to consider the suggestions made by the president at a former meeting on the topics "The Pharmacy Law," "Cutting of Prices," "Paying Commissions to Physicians," "Cipher Prescriptions," "Membership," "A New Building for the College of Pharmacy."

A paper was read by S. A. McDonnell on the "Syrup of Phosphates, Iron, Quinine, and Strychnine." The reading of this paper elicited considerable discussion in which Messrs. Schmidt, McDonnell, Searby, and Meier joined.

Mr. McDonnell presented another paper on a comparison of the Formula of the U. S. P., 1870, for Tinct. Ferri Chlor., with that of 1880. Much testimony was offered by different speakers and the consensus of opinion seemed to be that long keeping developed different chemical conditions, and somewhat different therapeutic effects.

A paper on the "Preparation and Use of Animal Charcoal for Decolorizing," was presented by Professor Meier. The next paper was read by Dr. Wood, of Haywards, and was partly of his own composition and partly of his young coadjutor, Mr. A. R. Hassler, and was entitled "Grocers' Drugs." They secured samples of various medicines from grocery stores in the neighborhood and submitted them to a searching examination. Among the substances examined were cream tartar, bicarbonate of soda, tartaric acid, castor oil, laudanum, assafætida, seuna, glycerine, seidlitz powders, liquor ammonia. Inferior goods were most universally noted and none of the preparations were up to the standard. The paper was received with much applause. Mr. McDonnell read a paper on "Gelatine Suppositories." Professor Meier read a paper on "Oxygen," by Charles W. Faulkner, a pupil of the College of Pharmacy. Professor Searby read a paper on "Compound Cathartic Pills."

Evening session:

Dr. S. H. Melvin, ex-president, occupied the chair. The subject of "Percentages on Physicians' Prescriptions" was the order of business. Quite an animated discussion ensued. The fol-

lowing members spoke: Messrs. Worden, Steele, Walters, Flint, Searby, Burks, Wolf, and McDonnell. The general opinion seemed to be that the practice was pernicious but unduly prevalent.

Second day meeting:

The success of the San Francisco Retail Druggists' Association has doubtless been the cause of establishing various local retail associations in California. A. B. McNeil, of San Jose, proprietor of the "Pacific Druggist," read a lively and interesting paper, "Some Pointers on Details," which was full of timely suggestions and value to the retail druggist. Mr. McNeil's paper was received with marked approval by all present. The paper met with much consideration and the ten "Pointers" were fully discussed by most of those present. Professor Searby presented a paper on "What Studies Should a Young Man Take Up Who Intends to Enter a College of Pharmacy." "Emulsion of Petroleum," was the title of a paper read by Mr. S. A. McDonnell. Mr. Wood, of Pasadena, read a paper on "Some Hints—and other things." Mr. Geo. Harvey read a paper "Hayden's Viburnum Compd." "Co-operation among Druggists," was the title of a paper contributed by James Steele.

Wednesday.—The committee to consider the Paddock Pure Food and Drug Bills reported as follows:

"We, your committee appointed to report the result of our investigations in the matter of the Paddock Pure Food and Drug Bill, would respectfully report that in view of the evidence that has been laid before this society at a former meeting, showing that food and drugs grossly adulterated are extensively sold in this State by grocers and general dealers, we deem it undesirable for this society to assume any attitude antagonistic to judicious

efforts to check the practice of adulterating drugs.

Submitted,
J. H. FLINT,
H. J. FINGER,

Committee.

Various other papers were presented to the meeting. The Los Angeles Pharmaceutical Association gave a banquet in honor of the California Pharmaceutical Society on Wednesday night, May 25, 1892. The festive occasion occurred at the Hotel Westminster and the banquet was held in the large dining-room. President Wolf, of the local society, acted as toast master, various toasts were presented and replied to by those named by Mr. Wolf. Among the speakers were Professor Searby and Messrs. Meier, Flint, McDonnell, Schmidt, and Steele. It was universally agreed that the Los Angeles meeting had been quite a success, and it was confidently asserted that much good would result to the society and College of Pharmacy.

Since the May meeting of the California Pharmaceutical Society in 1892, no annual or semi-annual meetings have been held. The gift from Gustave Sutro to the affiliated colleges of the magnificent site on Parnassus Heights overlooking the Golden Gate Park, the ocean beach, the great highway for shipping to San Francisco Bay, and the distant hills of Marin County, together with the erection by the State of the three commodious buildings to be devoted to the four professions, medicine, pharmacy, dentistry, and law, so fully occupied the minds of the druggists that the society was allowed to fall into "innocuous desuetude." There is now, however, a movement on foot to rehabilitate the old association which in its days has played so important a part in the history of pharmacy in California.

OREGON STATE PHARMACEUTICAL ASSOCIATION

The Oregon State Pharmaceutical Association met at Seaside, July 9, 10, and 11. From President J. M. A. Laue, we learn that 200 persons attended, and that the meeting was a great success. Among the various items of business transacted was the passing of a resolution favoring the holding of a Pacific Coast Pharmaceutical Congress in San Francisco in 1908, several of those present intimating their intention to attend. Another important resolution was passed submitting the following list of names to Governor Chamberlain from which the chief executive is asked to appoint one member of the State Board of Pharmacy: J. Sydney McNair, Ashland; Kittie M. Harbord, Salem; Fred Dawson, Albany; F. E. Rogers, McMinnville; F. A. Caldwell, Newberg.

Efforts are to be made to secure the enactment by the next Legislature of a law making it incumbent on the Governor to select one name each year out of five to be submitted to him by the State association.

W. B. Cheatham, of San Francisco, Coast Representative of the N. A. R. D., spoke of the good work done by the association in checking the inroads of the mail order houses upon the retail drug trade.

The following were elected officers for the ensuing year:

President, C. G. Huntley, Oregon City; first vice-president, M. E. Everett, North Bend; second vice-president, J. Marsh, Wasco; third vice-president, T. F. Laurin, Astoria; secretary, A. W. Allen, Portland; treasurer, Miss Agnes Plummer, Portland.

A delightful feature of the entertainment was a ball given in the Open Air Pavilion on the Necanicum River.

Among those present were the following:

Mr. and Mrs. J. Marsh and Miss Ella Marsh, of Wasco, Or.; E. D. McKee, Wasco, Or.; L. S. Perkins, Monmouth, Or.; W. B. Cheatham, San Francisco, Cal.; Mr. and Mrs. J. W. Bailey and child, Miss E. E. Bailey, Hillsboro, Or.; Charles H. Johnson, Junction City, Or.; Marcus Peterson, Buffalo, N. Y.; Mr. and Mrs. F. E. Rogers and child, McMinnville, Or.; Mr. and Mrs. Clyde G. Huntley, Oregon City; Frank H. Caldwell, Newberg, Or.; George H. Harding, Oregon City; G. L. Harding, Oregon City; M. L. Thompson, Falls City, Or.; C. H. Thompson, Falls City, Or.; M. E. Everett, North Bend, Or.; Mr. and Mrs. M. Z. Donnell and two children, The Dalles, Or.; G. C. Mattles, Detroit, Mich.; Mr. and Mrs. Theo. Laurin, Astoria, Or.; Edward Laurin, Astoria, Or.; Louis Levinger, Baker City, Or.; Mr. and Mrs. Albert Matthieu, Mr. and Mrs. F. A. Nichols, Mr. and Mrs. James A. Bamford, Mr. and Mrs. A. W. Allen, Dr. and Mrs. O. P. S. Plummer, Mr. and Mrs. Ben F. Jones and son, Frank C. Pozzie, John M. A. Laue, Guy T. Ketcheson, Ralph C. Crysler, J. F. Roth, J. H. Settlemier, Mrs. Charles S. Archer, Miss Bessie Munro, Miss Elsie Johnson, Miss O. Downing, Miss Laura Gantier, Dr. and Mrs. J. J. Fisher, Dr. and Mrs. W. I. Cattel, Mr. and Mrs. F. A. Ausbey, all of Portland.

WASHINGTON STATE PHARMACEUTICAL ASSOCIATION

This association held its eighteenth annual meeting at Moclops Beach Hotel, on July 19th and 20th. It was the largest ever held. Among those present were: William Clarke, wife and two children; Earl Moore, P. Jen-

sen, J. J. Yuill, W. P. Bonney, wife and daughter; Thomas J. Anderson, F. M. Young and wife; J. L. McKenzie and wife; John Latham and wife; William Duenkel, U. G. Wynkoop, D. G. McGown, T. Korn, M. C. Lyon, and O. V. Darrow.

The following were elected officers for the ensuing year: A. W. Preston, Seattle, president; Frank A. Gillette, Hoquiam, vice-president; William Fulton, Asotin, second vice-president; William Clarke, Tacoma, third vice-president; W. P. Bonney, Tacoma, secretary; P. R. Stahl, Centralia, treasurer.

Prof. Charles W. Johnson, of Seattle, of the University of Washington, was elected delegate to the American Pharmaceutical Association. The executive committee consisted of the following members: P. Jensen, J. W. McArthur, I. Korn, William Clarke, Thomas W. Lough, U. G. Wynkoop, A. L. Hopkins, C. V. Dunbar, G. E. Hamaker, A. W. Preston, P. R. Stahl, W. P. Bonney.

The names sent to the governor, from which to select members to the state pharmacy board, are: J. W. McArthur, W. S. Nicholson and A. W. Doland, Spokane; James Henderson, Sunnyside, and U. G. Pogue, Wenatchee.

An interesting event, not usually forming part of a pharmaceutical programme, was the marriage of O. P. Darrow, of Tacoma, to Miss Peltz, of Springfield, Mo., in the presence of the members of the Association. We admire the spirit of the bridegroom in wishing his fellow pharmacists to witness the consummation of his hopes, and to share his joys on that eventful occasion. We wish him and his bride a long and happy married life.

Violations of the Pharmacy Law should be reported to A. J. Fischer, Secretary, Santa Fe, N. M.

PROFESSOR JOSEPH P. REMINGTON

Professor Joseph P. Remington's visit to San Francisco and vicinity was greatly enjoyed by his old friends and pupils, who vied with each other in their efforts to show him attention. Immediately on his arrival in California he proceeded to the Yosemite Valley, intending to remain there two days. He stayed nine days, and could hardly tear himself away. On his return to San Francisco he was first taken for an automobile ride through the burnt and partly rehabilitated city, then through the Presidio Reservation and Golden Gate Park, stopping at the Affiliated Colleges to inspect the California College of Pharmacy. The next day a party of a dozen accompanied him over "the crookedest railroad in the world" to the summit of Mount Tamalpais, where the brilliant sunshine resting upon the fleecy masses of fog-cloud presented a scene of great beauty and grandeur. After partaking of luncheon, looking down upon the clouds, the party returned by way of Redwood Canyon to the city. The next day the Oakland pharmacists entertained him with a carriage drive over a wagon-road as crooked as the scenic railroad of Tamalpais, around the Piedmont and Claremont hills, stopping at Piedmont Park for luncheon. The day was perfect, the scenery beautiful, the ride delightful, and as for the stories, the betting on Remington and Leet was about even, with the odds slightly in favor of the Easterner.

In the evening he met a number of San Francisco druggists, by invitation of the Drug Clerks' Association, in their hall, 925 Golden Gate avenue. He gave them a half-hour's talk, touching on the work of the Revision Committee of the U. S. Pharmacopœia and

of the American Pharmaceutical Association. He spoke of the latter organization as the leading one in pharmacy in this country, and of the value it had been and still is to the pharmacist. He urged all present to become members, first of the State Pharmaceutical Society, and next of the national body. This was necessary if they would be progressive pharmacists, and keep in touch with the leading men in their profession.

At the close of his remarks nine persons signed applications for admission to membership in the American Pharmaceutical Association. After a general hand-shaking the party broke up.

The following day, Saturday, the 13th, Professor Remington took leave of his friends in San Francisco, going direct to Los Angeles. In Southern California he will meet many of his former pupils, who are more numerous there than in Central California.

STRENUOUS OPPOSITION TO GOVERNMENT'S RULING ABOUT SULPHURING FRUITS.

The seriousness of the situation in regard to the government's regulations concerning the sulphuring of fruits may be inferred from the fact that there are 8000 persons in California alone whose interests are affected, and that the Pacific Coast dried fruit industry represents an annual return to the Coast of more than sixteen millions of dollars; that the investment which produces this return is enormous goes without saying.

The Fresno Chamber of Commerce has sent the following telegram to Secretary Wilson:

Hon. James Wilson, Secretary of Agriculture, Washington, D. C.,

Fresno County Chamber of Commerce respectfully and urgently re-

quests immediate action, modifying sulphuring rule. Fresno county is producing this season half entire crop apricots and peaches in state of California, and unless relief granted, absolute ruin stares hundreds in the face.

WILLIAM ROBERTSON,
Secretary.

The Livermore Herald says:

"The new pure food law is in the main one of the best federal statutes ever placed on the books, but a grievous error was made in forbidding the use of sulphur in curing fruit. As sulphur is used not only as a bleach but as a germicide, it is indispensable, and the entire dried fruit industry will be threatened if some modification of the law cannot be secured.

There is no known substitute for sulphur and there is no known instance where any of the medical professions or body of scientists have ever found or in any way intimated that California dried fruits were not healthy, nutritious and a safe article of diet, and they are almost universally used as food for invalids and convalescents.

AN AIR OF DISSIPATION

Professor Remington on Tamalpais, looking down upon the clouds, watching them roll over Point Lobos and the Presidio hills, and seeing that the warmth of the land dispels most of the fog by the time it leaves the eastern shore of the peninsula, exclaims, "Why, dissipation is so rank in San Francisco that even the clouds passing over it are largely dissipated before they get away." And yet he says he wants to come back here again!

The Territorial Board of Pharmacy of New Mexico will meet at Albuquerque on Monday, October 7th.

FOOD INSPECTION DECISIONS.

(F. I. D. 52.)

FORM OF LABEL.

To meet the requests for the opinion of the Department regarding the proper arrangement of a label, the following order is suggested:

1. Name of substance or product.
2. In case of foods, words which indicate that the articles are compounds, mixtures, or blends, and the word "Imitation," "Compound," or "Blend," as the case may be.
3. Statements designating the quantity or proportion of the ingredients enumerated in the law, or derivatives and preparations of same,^a as mentioned under Regulation 28; also statements of other extraneous substances whose presence should be declared, such as harmless coloring matter, or any necessary statement regarding grade or quality.
- (The statements specified in paragraphs, 1, 2, and 3, should appear together without any intervening descriptive or explanatory matter.)
4. Name of manufacturer (if given).
5. Place of manufacture (if given, or when required in case of food mixtures or compounds bearing a distinctive name).

It is stated in Regulation 17 that if the name of the manufacturer and place of manufacture be given they should appear upon the principal label. Although the law does not require that the name of the manufacturer be given, or the place of manufacture, except in case of food mixtures and compounds having a distinctive name, it is held that if they are given they must be true, and should be placed with the required information on the principal label. The arrangement of the label is the same for both food and drug products and an example of each is given.*

Sample label for drug product.

[Name of product.]

[Declarations required by paragraphs 2 and 3.]

[Name of manufacturer, if given.]

[Place of manufacture, if given.]

COUGH SYRUP.

ALCOHOL, 10 PER CENT.

MORPHINE, 1/2 GRAIN PER OUNCE.

CHLOROFORM, 40 MINIMS PER OUNCE.

[Descriptive matter, if desired,^a but preferably at bottom of label.]

JOHN JONES & CO.,

WASHINGTON, D. C.

[Descriptive matter, if desired.]

Any descriptive or explanatory matter that may appear on the principal label, therefore,

should be placed at the bottom of the label, or between No. 3 and No. 4, and should be clearly separated from other features of the label by means of a suitable line or space. Statements regarding the reason for using alcohol, artificial coloring matter, and other extraneous substances, come under the head of descriptive or explanatory matter, and should not be interspersed with the declarations required under Nos. 2 and 3.

The information called for under No. 3 should be so worded as to give only the required information, as, for example, "alcohol 17 per cent" or "artificially colored." All numbers used in expressing quantity or proportion of substances required to be stated (see Regulation 28) should be expressed in the Arabic notation.

Each substance required to be declared under No. 3 should be printed on a separate line and in type specified in Regulation 17 (c).

JAMES WILSON,

Secretary of Agriculture.

WASHINGTON, D. C., January 18, 1907.

(F. I. D. 53.)

FORMULA ON THE LABEL OF DRUGS.

Many inquiries are received relative to the necessity of giving the formula of medicinal remedies on the label. The following is typical:

I should like to know if it will be necessary for me to state on a label the name of the products from which I prepare my proprietary medicine in order to conform with the pure food and drugs act. If I do this, it will prohibit me from manufacturing and selling a remedy which is a secret of my own; and anyone buying it could, from the label, tell what ingredients were used in its preparation and make his own supply of this medicine. How does the United States Government expect to protect those who have secret medicinal preparations they wish to sell at a profit? If the Pure Food Commission desires, I will send them a sample bottle of my medicine for their inspection and approval.

The food and drugs act, June 30, 1906, does not require the formula of drug products to be given on the label, but requires only that the quantity or proportion of the ingredients enumerated in the law, and derivatives and preparations of same (Regulation 28), shall be clearly set forth on the label or labels of all preparations used for the treatment or prevention of disease, either internally or externally, for man or other animals. This includes sample packages as well as regular trade packages.

^a Attention is called to the fact that the declaration of alcohol and its derivatives is not required in foods.

* We print only one.

The question is also frequently asked whether a medicinal preparation would be exempt from the operation of the law if the formula were given on the label. The formula on the label is very desirable, but this information is not required by the law. The act forbids the use of any statement, design, or device in connection with any drug product which is false or misleading in any particular. A defect of this kind would not be corrected by giving the formula on the label. If the formula is given, it must be the correct and complete formula. It is held that, in addition to those substances required by the act to be named, if only a part of the active medicinal agents used in the manufacture of a drug product are set forth on the label, such a procedure is misleading and therefore forbidden by the law. All drug products and their labels must conform to the act, whether the formula is or is not given on the label.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., January 28, 1907.

(F. I. D. 54.)

DECLARATION OF THE QUANTITY OR PROPORTION OF ALCOHOL PRESENT IN DRUG PRODUCTS.

The question of stating the percentage of alcohol present in drug products has caused a multitude of inquiries. The following questions along this line serve as examples:

Is it necessary to give the amount of alcohol present in U. S. Pharmacopœial or National Formulary products? It seems to me that such a requirement is absurd, and not contemplated within the spirit of the act. None of them are patent medicines. Will I be compelled to tell how much alcohol is present in such goods?

If we apply for and obtain a serial number, must we in addition to putting this number on our labels state the per cent of alcohol?

Will it be necessary to give the per cent of alcohol present in such products as ether, chloroform, colloidion, spirit of nitrous ether, and similar preparations?

The law is specific on the subject of declaring the amount of alcohol present in medicinal agents, as can readily be seen from the following language: "An article shall also be deemed misbranded * * * if the package fail to bear a statement on the label of the quantity or proportion of any alcohol * * * contained therein." No medicinal preparations are exempt, whether they are made according to formulæ given in the U. S. Pharmacopœia or National Formulary or formulæ taken from any other source. The serial number, with or

without the guarantee legend, does not exempt a preparation from this requirement. The law does not make any statement as to the amount of alcohol that may or may not be employed. It requires, however, that whatever amount be present shall be set forth on the label. The percentage of alcohol given on the label should be the percentage of absolute alcohol by volume contained in the finished product. The manner in which it should be printed is shown in F. I. D. 52.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

(F. I. D. 55.)

METHOD OF STATING QUANTITY OR PROPORTION OF PREPARATIONS (CONTAINING OPIUM, MORPHINE, ETC.) USED IN MANUFACTURING OTHER PREPARATIONS.

Many inquiries are received as to the method of stating the quantity or proportion of preparations (containing opium, morphine, etc.) used in the manufacture of other preparations. Of these the following are typical:

If the label on the bottle were to bear the words "Tincture of Opium," I reason that as this is a definite preparation, constituting a preparation of opium, and so definite as to its composition that to any intelligent person it expresses definitely all that it is desirable to express, the use of this title alone should be sufficient. I feel that as a preparation it is distinct from opium, and if this particular tincture is used in the manufacture of a preparation the mention of it alone should be sufficient.

Where extract or tincture of cannabis indica, or extract of opium, is employed in making other drug products, would it not be complying with the law if the use of such articles be clearly indicated on the label as prescribed by the law, or is it necessary to give the actual amounts of the drugs themselves represented by these preparations?

Names of drug products bearing any of the names of the ingredients enumerated in the act are construed as representing "preparations" within the meaning of the act; and if the same are clearly declared upon the label as required by Regulations 17 and 30, it will not be necessary to give the actual amount of the primary drugs used or represented by such article. It is desirable, however, that the word or words used in the law shall constitute the first part of the name of the product. For example: "Opium, Tincture of"; "Cannabis Indica, Extract of," followed by the amount of tincture or extract used.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

New Remedies*

Maltosicat or Maltosikat.—

A name chosen by G. Hell & Co., of Tropaupau, to designate their dry malt extract.

Iodoformogen.—

A combination of iodoform and albumen, put on the market by the Chemische Fabrik, Greiner & Cie, Glarus, Switzerland.

Guayacol Perdynamin.—

According to *Apotheker Zeitung*, this contains five per cent of sodiumguaycacolate. Put on the market by H. Barkowski, Berlin.

Novaspirin.—

The methyl critic ester of salicylic acid, used in place of the salicylates. Put on the market by Farbenfabriken vormals Bayer & Co., Elberfeld.

Borovertin.—

Hexamethylen-tetramin triborate, a diuretic of considerable value, is put on the market by the Actien Gesellschaft fur Anilinfabrikation, Berlin.

Uderenin.—

Contains as active ingredients, says the *Pharmaceutische Centralhalle*, beta cocain and adrenalin. Put on the market by Parke, Davis & Co., Detroit.

Nasan.—

By this name a dressing consisting of the usual wadding, saturated with formalin solution, is designated. Put on the market by Apothecary Kejnlar of Altpaka (Hungary).

Pusol.—

According to the *Pharmaceutical Journal*, this is a powder for dusting on wounds, etc., containing phenol and camphor. Used in skin diseases. The name of the exploiter is not given.

Electrargol-Electrauro, Etc.—

Electrargol, Electrauro, Electroplantinol and Electropalladiol, are colloidal metals obtained by electrical processes which are recommended as bactericides by the exploiters, Comar, Fils & Cie, Paris, France.

Tulaselactin.—

A new remedy, says the *Pharmaceutische Centralhalle*, of which nothing (except the name) is known, but with which Professor Behring hopes to immunize the newly born infants against tuberculosis.

Coryfin.—

According to the *Pharmaceutische Central-*

halle, this is the ethylglycolic ester of menthol, used, externally, in headache and nasal catarrh. Put on the market by Friederich Bayer & Co., Elberfeld.

Sepdelen, Salt.—

This consists, according to the maker, Alex Müller of the Löwen Apotheke, Bad Kreuznach, "of physiological salt and plant alkalies," and is used in a long list of complaints, in connection with Tithen Pills, which see.

Euman.—

According to the *Vierteljahresschrift für praktische Pharmacie*, this is a serum used in veterinary practice in the treatment of porcine influenza, an epizootic. Put on the market by the Serum Laboratory of Ruete-Enoch, Hamburg.

Ischaemin.—

A liquid consisting of 1 part to 1000 parts of the pure crystallizable active constituent of the suprarenal capsules dissolved in physiological salt solution. It is employed like Adrenalin. Put on the market by Armour & Co., Ltd., Hamburg.

Manka Capsules.—

These contain, according to Dr. Zenner (*Therapeutische Monatshefte*), oil of sandalwood, arbutin and etheric extract of buchu. Used in blennorrhagia. Dose, 4 to 6 capsules daily, taken with milk, coffee, tea, etc. Exploiters, Strauss Apotheke, Berlin.

Horta.—

According to the *Chemische Zeitung*, this is a mixture in equal parts of Peru cognac and malt extract. It finds use in old bronchial catarrhs, asthmatic troubles and the sequelæ of grip. Dose, a liqueur glass thrice daily. Exploited by Dr. Hauser, Mooskirch.

Tithen Pills.—

These, according to the *Pharmaceutische Centralhalle*, apparently consist of 30% ichthyol-sodium phosphate and 60% vegetable alkalies and 10% of diuretic extractive material. They are used "in catarrhs of all kinds, bladder and kidney complains, gall stones, gout, rheumatism, varix and hæmorrhoids" in connection with Sepdelen salts (which see on this page). Exploited by the Löwen Apotheke, Alex Müller, at Bad Kreuznach.

* By courtesy of National Druggist.

Scarlatin—Marpmann.—

An antitoxin used mainly as a preventive of, or a prophylactic against scarlatina, but also used just after the eruption has made its appearance. Its action, however, is said to be the better the earlier it is used. It should be kept dry in a cool, dark place. Thus preserved, it keeps its activity for a year. Exploited at the Chemisch-bakteriologisches Institute Marpmann, Leipzig.

Chirosoter.—

A solution, says the *Pharmaceutische Centralhalle*, of wax and balsams in carbon tetrachloride, which gives protection from blood poisoning during operations. The evaporation of the solvent leaves a protecting layer on the skin, which can be readily removed when desired by the use of soap, spirits, ether or benzin. The preparation is not inflammable. Exploiters, Krewel & Co., Cologne.

Nastin.—

According to *Deutsche Medizinische Wochenschrift*, Nastin is an ester of glycerin, a high moleculated fatty acid—nastinic acid. It appears as a solid, white paraffin-like body, with a peculiar fruit-like smell. It is used as a remedy in leprosy, and, according to Professor Dr. Deyche Pasha and Reschad Bey, it must be accredited with certain cures detailed in the journal referred to. The maker and exploiter is not given.

Cystopurin.—

This, according to the *Apotheker Zeitung*, is a double combination of one molecule of hexamethylen-tetramin with 2 molecules of sodium acetate. It appears as pure white spirits, the taste of which is exceedingly salty. Ten parts of Cystopurin dissolve in 9 parts of cold water, and one and a half parts in 1 part of warm water. The aqueous solution is nearly tasteless. It is used in gonorrhœa and bladder affections generally. Exploited by Joh. A. Wülfing, Berlin.

Euchinin, Hydrogeniodate.—

According to Astruc and Combe *Repertoire de Pharmacie*, this is produced by slowly and carefully pouring a solution of sodium iodide into an aqueous solution of euchinin to which lactic, citric or acetic acid has been added. There ensues a precipitate of white crystals, soluble but slightly in water, more so in alcohol, and which easily turn yellow in the atmosphere. It seems that no effort has yet been made (says *Pharmaceutische Centralhalle*) to discover whether this substance offers a practical manner of the simultaneous administration of iodine and euchinin.

POISON OAK

The great army of remedies arrayed against this troublesome ailment would seem to indicate the absence of any "specific" treatment, and the lack of remedial measures that can always be depended upon to give relief.

In the absence of a specific, the ideal remedy is one that proves efficacious in the majority of cases, and one which can be depended upon to afford at least temporary relief.

The following is such a remedy, and I am certain it will appeal to many druggists desiring a convenient and safe antidote which they can confidently offer their customers.

In fresh cases of Rhus poisoning, much relief is afforded by bathing the parts with sal soda or other alkaline wash, and this can be recommended conjointly with the remedy.

R

Pulv. Camphoræ 3j
Phenolis Liq. 3ss.
Æther Sulph. 3v
Acidi Tannici 3j
Alcoholis q. s. ad..... 7j

Misce. sec. art. et filtra.

Signa:

Apply with camel's hair pencil
every hour or two.

After a number of applications the coating is washed off and a fresh layer applied. Patrons should be warned to keep the stopper on, and avoid bringing it near a flame.

The application is delightfully cooling, due to the evaporation of the volatile constituents; the anodyne effects are augmented by the camphor and phenol and by the astringent action of the tannin, and the parts are sealed hermetically.

Put up in wide-mouth bottles. F. I. L.

**DE-NATURED
ALCOHOL**

Among the regulations issued July 25 is the following, which will interest druggists:

Manufacturers using completely denatured alcohol are not required to swear to application for a permit, and a permit when secured continues in force until revoked, and retail dealers in denatured alcohol are not required to keep a record of any kind.

What They Think of Us

Below are just a few of the letters received from our subscribers. For their \$1.50 they will receive the journal; for their expressions of good will we can only thank them. Good will can only be bought with good deeds.

Marshfield, Oregon.

Gentlemen: I received and perused with pleasure the first number of the **Pacific Pharmacist**. It makes a very creditable appearance and I think will fill a "long-felt want."

Pharmacists of the Pacific Coast should heartily support a journal that is devoted to their interest, both financially and scientifically.

Enclosed find check for a year's subscription. Wishing you success, I am,
Yours very truly,

J. L. BROWN.

Rio Vista, California.

Gentlemen: It is with pleasure I remit you \$1.50 as my subscription to your paper. I hold myself ready and willing to at any time cast my lot for the elevation of the craft. Wishing you success in your enterprise, I am,

Yours very truly,

THOMAS A. SPIVEY.

Redlands, California.

Gentlemen: Enclosed find post-office order for \$1.50. Kindly send me the **Pacific Pharmacist** for one year, beginning May, 1907. Your first issue came to my notice, and I never had the pleasure of seeing a brighter or more pleasing publication. Wishing you success, I am,

Respectfully yours,

G. S. GARDNER.

No. 407 Brookside Avenue.

St. Louis, Mo.

Your first number is most excellent in every respect. I may call it a compendium of all necessary laws and general knowledge which at present is of interest to the California pharmacist. I have carefully examined the number. If you continue it similarly it must be a complete success, and also much labor.

Yours faithfully,

ENNO SANDER.

San Jose, Cal.

Gentlemen: I am nearly bankrupt from a superabundance of literature, yet how can I back out from that to which the honored name of Searby is attached—hence find check enclosed for a year's subscription to the **Pacific Pharmacist**, and accept my best wishes for the prosperity of the same.

Yours very truly,

THEO. V. BROWN.

Berkeley, California.

Gentlemen: I have received the first number of the **Pacific Pharmacist**, and have examined it carefully. One wonders how the profession has done without this journal, it contains so much that every druggist needs to know. I thank you for sending it.

Very truly yours,

HARLEY R. WILEY.

Oakland, California.

Gentlemen: I can only speak of the **Pacific Pharmacist** in the highest terms, and am sure it will meet with the hearty approval of the pharmaceutical profession.

Sincerely,

J. J. O'GRADY.

To the **Pacific Pharmacist**,

Henry Kaplan, Esq., Manager,

Dear Sir: I have received the first three copies of the **Pacific Pharmacist** and read them with much interest and satisfaction. Permit me to congratulate you and your able staff of editors for giving to the pharmacists of this State a journal devoted to the best interests of our more or less demoralized profession.

It will do more than anything else to harmonize and bring us in closer touch with each other. It is just what we needed. No druggist who claims to be up to date can afford to be without it. Every copy is worth the price of a year's subscription.

Very respectfully yours,
VAL. SCHMIDT.

San Francisco, August 2, 1907.

Gentlemen: I am much pleased with the **Pacific Pharmacist**. A reference to your price list one time saved me the cost of a whole year's subscription.

W. I. MOORE.

Pacific Pharmacist, 410 Kearny Street,
San Francisco.

Gentlemen: We have seen two or three numbers of your publication and wish to congratulate you on the excellent magazine you are getting out. We want you to enter our subscription for your magazine, and would also like you to advise us as to your bottom price on full-page advertisements. Also give us price on the inside cover, and the back cover.

It is probable that we will want to use your journal as a medium for advertising one or more features of our business.

Awaiting your reply, we remain

Yours truly,
THE OWL DRUG CO.
(Incorporated)

Per W. M. Berg, M.

Los Angeles, July 20, 1907.

Mr. W. M. Searby,

Dear Sir: I am pleased to send in subscription for **Pacific Pharmacist**. The original matter contained therein is certainly most interesting to me and I shall be a devoted reader.

Sincerely,
H. L. SCHERB, '93.

Willows, July 11, 1907.

Gentlemen:

I am pleased with the neatness of the **Pacific Pharmacist**; the sample copies sent to G. W. Orr's drug store have appealed to me, so enclosed find remittance to increase and help out the work.

Yours truly,
M. A. HARRINGTON, Jr.

Woodland, July 7, 1907.

Gentlemen:

Like your paper very much. Think we need a paper like the one you are getting out very much indeed.

You may consider me herewith a subscriber to same.

Yours very truly,
F. von JOCUMSEN.

Maxwell, California.

Gentlemen: Sample copy of the **Pacific Pharmacist** received and I note that Professor Searby is editor, which is a guarantee that the journal will be first class. Enclosed find check for my subscription.

Yours truly,
ARTHUR J. FOUCH.

Jamestown, Cal., June 22, 1907.

Prof. J. H. Flint,

Asst. Editor **Pacific Pharmacist**.

Dear Professor: I am enclosing my check, for one year for the subscription to the **Pacific Pharmacist**.

I must compliment you on your journal, and think it is just what we want on the coast. Wishing you the best of success which I know you will have, and hoping you are well, I remain.

Yours respectfully,

H. S. FLANDERS.

Sonoma, California.

Dear Professor: I have seen a sample copy of the **Pacific Pharmacist** and perused it with quite a degree of pleasure. If I remain in my present frame of mind, you may expect a subscription in the near future,

Very truly yours,

O. EASTLAND.

Berkeley, Cal., July 11, 1907.

Gentlemen:

Enclosed please find a check for one dollar and fifty cents (\$1.50), for the subscription to the **Pacific Pharmacist**, I have read the copy you have sent to me, and I think it is the most valuable journal on pharmacy on the Pacific Coast.

Wishing you success, I remain.

Yours truly,

R. E. SHAPIRA.

Stockton, California.

Gentlemen: The first two issues of the **Pacific Pharmacist** came to hand, and I have enjoyed the contents very much. We need a journal of this kind on the Coast, and I hope the **Pacific Pharmacist** will get the support it deserves.

Very truly yours,

J. A. SANFORD.

Saratoga, Cal., July 22, 1907.

Gentlemen:

I beg to acknowledge receipt of the May and July numbers of your valued journal, and request that you enter my subscription with the August number.

The June copy you sent has evidently gone astray, much to my regret.

I cannot imagine any better purpose \$1.50 can be put to than invested in this journal, and I hope the enterprise may prove in every way successful. I am,

Yours most sincerely,

FRED I. LACKENBACH.

Salt Lake City, Utah.

Gentlemen: The **Pacific Pharmacist** is a most valuable and interesting addition to our drug journals, and I trust that every druggist on the Coast and in the Mountain States may appreciate its helpful benefits by subscribing for it.

Very truly yours,

F. A. DRUEHL.

The Annual Meeting of the Santa Clara County Retail Association was held on July 25, 1907, when the following officers were elected:

J. G. Munson, president; G. G. Morehead, vice-president; R. V. Davis, secretary and treasurer. Executive Committee—J. W. Thomas, E. H. Baker, W. S. Johnston, R. S. Kennedy, L. Doerr.

This association is one of the oldest in California. It was organized a few weeks after the meeting of the California Pharmaceutical Association, which met at Hotel Vendome some sixteen years ago, thanks to the encouragement from the association at that time.

A Dry Dock

It is told of Mark Twain that during a conversation with a young lady of his acquaintance he had occasion to mention the term "dry dock."

"What is a dry dock, Mr. Clemens?" she asked.

"A thirsty physician," replied the humorist.—Carolina Medical Journal.

Personals

Chas. Abrahams, the popular druggist at McAllister and Fillmore streets, is taking a trip to Tahiti—expected home in August.

F. E. Lockwood came over from Mill Valley to see the Britt-Nelson fight. Frank reports business fine.

Chas. C. Banfield is doing a wonderful business in Wonder, Nevada. Says it is very hot! up there now. How hot, Charlie?

Geo. Root has returned from his vacation. He had a good time and brought home a fine four-pointed buck. Where did you root it up, George?

Harry Blackman, manager of J. Isacson's pharmacy, has a bouncing boy at home and he will teach him the drug business soon. Congratulations to mother and father.

J. Newton Gray has returned from a month's vacation in the Santa Cruz Mountains, and will settle down to hard work at the Hayes Valley Pharmacy.

Geo. C. Blakeley, president of the Oregon Board of Pharmacy, of The Dalles, Oregon, is visiting in San Francisco.

E. B. Gibson, wife and daughter Lelia, of Ukiah, are spending their vacation in Nome. Bert says he will have some big bear stories to tell when he gets home.

Clegg, Serwe & Prien have reincorporated, and hereafter will be known as Serwe-Prien Drug Co. They are doing finely with the branch at Los Angeles, and will open a branch in Seattle about Sept. 1.

Billy Openheimer has returned from Lake Tahoe, where he had a fine time, and now is ready for some good rush days.

T. H. Davis, of the Richmond District, is still away from the store on account of sickness. We hope to see him back in the store shortly, as he is improving fast.

Levy & Wheeler have made a great many changes in their store in Oakland. They added a balcony to give them more room, and are extending the length of the store.

Lou Harris, the popular head clerk of Lengfeld's, has returned from a two weeks' trip in the southern part of the State. He says the fish look fine through the glass-bottom boats at Catalina Island.

Ralph Feig will leave Sunday for Santa Cruz Mountains, where he expects to remain for two weeks, looking for a long needed rest. Wonder if that's all Ralph will look for.

Miss Dolcini, the popular druggist at St. Luke's Hospital, is enjoying a month's visit with her parents at Guadalupe. Miss Nolan is attending to the wants of the sick during her absence.

G. W. Greenberg has bought the Model Pharmacy, corner Twenty-fourth and Church, and will take charge about the 1st. Success to you, Mr. G.

Chas. Briggs has returned from his vacation. He says there is good fishing and plenty of deer around Ukiah. If any of our young friends want an outing he will give them a permit to hunt on his ranch, while he is hard at work at the Economic.

James Creighton has accepted a position with Curtis & Hinkle, of San Jose. He has been tried and tested before, and is anxious to get back to San Jose again.

Mr. Augustus Lang and wife, of Los Angeles, have left for an extended trip through Germany.

Frank Gay, with his everlasting smile and popular right hand, is in charge of the Alta Drug Co. No better selection could be made.

Dr. Samuel Goldman, '03 of the pharmacy department, having received his M. D. degree this year, has taken an internship at the Sacramento County Hospital, and he has for his companion Dr. Schoonberg, a classmate. This duo make a good team, and the Sacramento hospital is to be congratulated on securing this pair of young medicos. "Sam," as the boys call him, will make a good doctor for he is a good pharmacist, having had an excellent training in compounding and dispensing.

Harold Hooper, class of '06, is with the Rex Pharmacy. He has had several offers to go elsewhere, but he likes the location about Nineteenth and Castro streets, and some one has suggested that perhaps there was more than location or the good companionship of Dr. Brayton to attract the handsome young pharmacist.

Claude Cave writes from Ogden, Utah, that he is making hay while the sun shines in the beautiful country about the "Great Sodium Chloride Lake." Claude does not exactly mean hay, in its true sense, but says that he has been putting in all of his spare time studying, and feels confident that he will master pharmaceutical mathematics by the time college opens, when he will return and show some of the boys how to do expert work in that line.

The White Lion Pharmacy have opened their new pharmacy at Boise City, Idaho, and it will be under the able management of W. H. Shafner, assisted by W. H. Hund. With such a team who can doubt the success of their venture.

One of the young ladies of the class of '03 (and, by the way, there were more than three ladies in that class), it is rumored will take a life partner from the class of '05 some time in the near future. John Henry is to be congratulated, for she will be a valuable acquisition, not only as a wife but as a first-class business partner.

E. T. Winters, of Las Vegas has been confined to his bed for some time, being threatened with an attack of pneumonia, but we are pleased to hear that he is rapidly recovering.

Bowman Meritt has severed his connection with the Long Beach Pharmacy, and has accepted a position with J. P. Hatzfeld, Anaheim.

J. B. Guest will now be seen managing the store formerly owned by O. D. Baker, Oak Park, Sacramento. It is needless to say that it will be first-class in every respect, as Mr. Guest has had a great deal of experience in managing a drug store, and knows how to handle customers, and that's what makes business.

J. C. Reaher, who was managing Dr. Vredenberg's store in Chino, has decided to paddle his own canoe, having bought out Dr. Vredenberg's interest. Success comes to those who strive for it.

The indications are that we will have a good sized class and the material of good quality, at the opening of our college term this fall.

The Mullan Drug Co., of Idaho, was recently incorporated by James and Mary Campbell, of Hope, and Geo. H. Tyler, of Mullan, Idaho. They expect to fit up one of the handsomest stores in the State of Idaho. We wish them success in their enterprise.

B. T. Mouser has returned from a two weeks' trip south. He is always glad to get back to Oakland. Business is good and he is needed.

W. F. Fairchild is taking a well earned vacation in Colorado.

The Sun Drug Co., of Los Angeles, had their assessment reduced from \$39,000 to \$29,000.

Columbus Talbott, of Albuquerque, has accepted a position with the Berry Drug Co., at Estancia, New Mexico. They both ought to be congratulated.

The Young-Casselman Drug Co. are located temporarily at 1209 Sutter St.

Robert Lainer is undoubtedly doing good business, as he finds it necessary to enlarge his store.

Joe Freitas, of Truckee, is selling more fishing tackle than drugs, as the trout season is now in full swing. He can tell a few fishing stories, too.

Miss M. Enid Cardwell, Ph.C., is at Collins Brothers in Oakland. You better watch Collins' store if you want to see how business improves by having popular clerks.

Belden & Upp and **P. T. Hahman** have succeeded in landing the contract for supplying Sonoma county with drugs.

H. F. Gilliland, of Riverside, has decided to locate in Ontario, and has bought out Bennison & Treanor.

W. H. Shreeve, of Santa Monica, has just returned from Mexico, where he went to enjoy a well earned vacation.

Miss Lilian Patterson has purchased an interest in McNair Bros.'s store in Ashland, Or. Miss Patterson has been with the firm for considerable time and was an important factor in the store's popularity and success.

The Abbie Drug Co. are now doing business at 934 Dupont street, San Francisco.

D. Denegri has one of the prettiest stores on the North Beach, located at Montgomery avenue and Broadway.

Penn Drug Co. are doing a fine business in their new store at 122 Third street, near Mission.

G. A. Swabey is now located at 4431 Mission street. He certainly ought to do well out there as it is a very populous district.

Mr. Pattiani, city sales manager of the Langley & Michaels Co., has recovered from his recent severe illness, and is again at his desk after a month's absence, attending to business.

Mr. J. G. Tanner and the Palmer Drug Co., of Santa Cruz, have been awarded the contract to supply the county with drugs.

T. M. Bergen has purchased the Red Cross Pharmacy, at Whittier, of W. H. Kenrick. Mr. Kenrick intends to take a trip to his old home in Vermont.

Mr. W. G. Gliddings, the Ogden, Utah, druggist, is visiting Los Angeles.

R. Philip, father of W. B. Philip, the enterprising Fruitvale druggist, is down on a visit. He is staying with his son at the Philip home on Fruitvale avenue. The visitor is a pioneer engraver of Sacramento.

"Billy" Kendrik, who has been proprietor of the Red Cross Pharmacy for the past seven years, has sold out to F. M. Bergen, who came to Whittier about a year ago with his family from Minnesota.

Burglars Enter Pharmacy—Burglars climbed through the transom over the front door of the Raven Drug Company's store on Second avenue, between Union and Pike streets, Seattle. They secured \$25 from a cash drawer, and also took a few razors and articles of cutlery. Escape was made by the rear door.

The Pomona Valley Medical Society entertained the druggists of Pomona at the Knights of Pythias hall on Tuesday evening, July 2. An interesting program, both to the physicians and the druggists, had been prepared, and a banquet was served at the close of the session. That is as it should be.

M. C. Pencovic, of the firm of Pencovic, Harris & Co., has been away for a vacation, and while away was married. He will leave shortly for Portland and the northwest, where he will spend some time in the interest of his new wholesale business, known as the Pacific Drug Co., of which he is president.

B. S. Dickhoff will occupy his old location about Sept. 1, corner Geary and Fillmore streets, with one of the finest stores on the coast.

The Economic Drug Co. was robbed last week of \$40 in change and \$800 in merchandise. The robbers entered the back door and left the same way. No trace, so far.

Mr. N. C. Kauffman is the new manager of the Edward L. Baldwin Company's store at 333 Devisadero street, San Francisco.

Dr. Haydn M. Simmons, proprietor of the Fulton Pharmacy, San Francisco, spent a short but delightful vacation recently at Dutch Flat, California.

Paul Nippert has recently been employed by the Ferry Drug Company, Sacramento street, San Francisco.

J. H. Brown, manager of Frank T. Green's pharmacy, with his wife and family, has returned from a three weeks' vacation at Cazadero, California.

Mr. E. L. Baldwin, president of the Ferry Drug Company, and one of the most progressive pharmacists in San Francisco, will take a short vacation this month. He expects to go deer hunting in Lake county, Cal.

Mr. W. B. Cheatham attended the Oregon Pharmaceutical Association's meeting.

The well-known Booth Pharmacy, one of the oldest established businesses in Truckee, was sold Saturday to D. Shoemaker, M. D., formerly a resident of Truckee, but now living in Oakland.

Articles of incorporation of the City Drug Store Company, of Sonora, were recently filed by E. J. Landers and Bessie and J. W. Sollars.

Stanley Bartle, who with Lester Jones has been in charge of Neville's drug store, in Monrovia, during Mr. Neville's absence in the East, had the misfortune to lacerate his left hand. The wound was dressed by a local surgeon who says that although not serious it will take some time for it to heal.

F. A. Lewis has installed a magnificent soda fountain and is otherwise improving his drug store.

H. McComas has added another man to his force of clerks. The latest is **E. M. Hale**, an unusually competent pharmacist, late of Lengfeld's Pharmacy, San Francisco, who is now holding down the prescription department of H. McComas, Stockton.

A. W. Allen, secretary of the Retail Druggists' Association of Portland, and a number of other druggists are discussing the advisability of closing the drug stores on Sunday. Several conferences have been held and the matter is to be more fully discussed. It is planned to have the drug stores closed all day Sunday with the exception of two hours immediately after noon. There is said to be opposition to the movement on the part of certain druggists.

Must be sold on account of sickness—An old established drug store; prominent corner in Mission. Call right away; good business. J. KEMP, 2223 Mission street.

Dr. Henry L. Day, member of the prominent wholesale drug firm in Honolulu, and a brother of Dr. Thos. M. Day, of Sacramento, arrived recently and has been busy greeting his old schoolmates. Dr. Day came to San Francisco to buy for his firm.

Mr. J. Odell has resigned his position at the San Dimas drug store, and will take a vacation before accepting another position. Miss G. L. Hedges, a graduate of the Kansas State Normal School of Pharmacy, has taken the position vacated. Now watch business boom.

Fire broke out in McKee's drug store in Wasco, Ore., but was extinguished before it had done any considerable damage. The flames were started by carbolic acid which was being heated becoming ignited. But for effective and quick work it is likely that great loss would have resulted. The damage is said to be about \$200, and results mainly from burning chemicals.

The firm of Holliday & Cooley, druggists, of Mesa, Arizona, has been changed to the M. P. Holliday Pharmacy. The change was brought about by Holliday purchasing from C. R. Cooley his half interest in the business.

M. W. Dunnigan has secured the services of Mr. Del Marr, an experienced pharmacist to take charge of the Modern Pharmacy, as he expects to leave shortly for Sunnyvale to look after his drug store there and take a much needed vacation.

E. E. Hageman purchased the Corcoran drug store from N. J. Corette.

R. D. Evans has accepted a position with the Payton Drug Company, Roswell, N. M.

Charles M. McMurran and Paul D. Vann have purchased the Pacific Pharmacy, operated by B. Lustig, at 136 Pine avenue, Long Beach. The new concern will be known as the Vann Drug Co. Messrs. McMurran and Vann were formerly located in Arizona.

The Bickford Drug Co., of Seattle, was recently organized with a capital stock of \$10,000.

C. B. Marsden's drug store in Butte, Mont., was recently attached by the Montana Drug Co., of Butte, the Montana National Bank, and the State Savings Bank.

J. C. Adams and Isaac Stoddart have incorporated the Adams Pharmacy, of Phoenix, Arizona. They contemplate enlarging and remodeling their store, with a view of having one of the most modern pharmacies in the territory. Andrew Mills is a member of the company, and, acting as manager, will have full charge of the store.

Nogales, Arizona is coming to the front, having an up-to-date pharmacy, which will be managed by Coronado Gaxiola, and will be known as La Botica Central.

W. L. Gardiner is going to take charge of the Quaker Co.'s new store in Seattle, a store of which anyone should be proud.

S. R. Clayes, the Stockton druggist, is moving his store from the Odd Fellow's Building to corner Main and Hunter streets. Mr. Clayes expects to have one of the most attractive stores north of San Francisco.

Monroe, Wash., druggists are keeping up with the general trend of improvements being made throughout the country. Mr. Mansfield has made a number of improvements, and has added a very handsome soda fountain to his store.

J. P. Hatzfeld, of Anaheim, will soon be in his new store, one of the handsomest in the county.

R. H. Bohmansson, the popular druggist of Arcata, was staying a few days in San Francisco recently.

F. L. Moore stayed a few days rusticated in Petaluma, and was glad to get back to San Francisco.

Henry Combs has accepted a position with the Rainey Drug Company, at Hanford.

The Valley Drug Co., of El Centro, in the Imperial Valley, have installed a very handsome fountain.

F. H. Eggert, well known about the bay cities, has been appointed druggist at the Alameda County Hospital.

George Fleisheimer and Edward L. Proebsting, the owners of the Wallace Drug Co., Wallace, Idaho, have a store and business that they are justly proud of. Their business is increasing rapidly, owing largely to their efficiency and courtesy.

George Stewart, the pioneer druggist of Wallace, Idaho, has one of the most complete drug stores in the Cœur d'Alene district, and is doing a very good business there.

Frank Babcock, of Port Angeles, Wash., is making a great many improvements and installing a new soda fountain. Leave it to Frank to keep up with the times.

The Sun Drug Co., of Aberdeen, Wash., are putting in an ice cream and soda department in their store, and are anticipating a rushing business.

Mont. P. Chub was awarded a portion of the contract to supply the State hospital at Patton. Things are coming Chub's way; last month a wife and this month the contract. What's next?

W. J. Philips, the manager of the American Drug Store at Cananea, made a trip to Bisbee, Arizona, for a few days.

John L. McKenzie is greatly improving his drug store in South Tacoma by the addition of one of the finest soda fountains in Tacoma. He is making a great many changes and when they are all completed will have one of the most up-to-date pharmacies in Washington.

The Willard Drug Company have moved to their new building on Main street, Las Vegas, N. M. Wilson & Sears are the proprietors. Dr. W. A. Wilson, the senior member of the firm, is a prominent physician of this place.

Alfred Heying, formerly employed by Hatzfeldt's, at Anaheim, is now in San Francisco, where he intends to take a course in pharmacy.

A large soap factory will soon be erected in Alameda by the North American Soap Company, an Eastern concern with factories in Chicago and elsewhere.

Fox Brothers, of Placerville, will shortly move into their own building. They are having extensive alterations made, and when completed they expect to have the best appointed drug store in Northern California.

Thieves of late have shown a great partiality to drug stores, the last victim is Hockett, Walla Walla, Wash., whose store was burglarized recently.

The druggists of Cœur d'Alene are paying a great deal of social attention to each other. They recently gave a launch party at Beauty Bay, and the reports are that they are having a very agreeable time. Those in the party were: Mr. and Mrs. J. J. Pulse, of Grangeville; Mr. and Mrs. R. F. Payne, of Idaho Falls; Mr. and Mrs. W. F. Smith, of Payette; Mr. and Mrs. Clement Wilkins, Mr. and Mrs. Palmer-ton, Mr. Whitaker, and Dr. Hunt Sheppard.

Lindsay Brothers of Woodland will move their business to Arbuckle this month. They have made many friends at Woodland who will regret to see them leave.

Luther M. Jee, class '03 of the California College of Pharmacy, has accepted a position with the Moore Drug Co., corner Kearny and Sacramento.

Dr. A. M. Parker, of San Jose, was before the board of pharmacy and secured his licentiate certificate, with hands down as the saying goes.

San Luis Obispo can now boast of as fine a soda fountain as any in the State. It was erected a short time ago in Denning's Pharmacy.

Lynn Boyd, whose store at Fifth and C streets, San Diego, is constantly crowded with customers, are having a hard time finding room for the increasing business.

The marriage of Mr. George Pease and Miss Alice Eagan in this city, on July 16th, marks another joyful event in drug life.

This happy couple are both employés of the "Owl Drug Company," in the Sixteenth Street store. George was foxy, and did not let the boys in on the secret till after he passed the State Board examination, which he did with many credits to the good, securing his Licentiate Certificate easily.

George, you have been a lucky boy to draw two prizes in one week, the better of which is your life partner!

We wish you much joy and a fair wind to sail you on the matrimonial sea.

We are pleased to learn that Archer & Schanz, the wholesale druggists of Portland, Oregon, who recently suffered a loss of their entire stock by fire, are rapidly re-establishing their business. They are certainly entitled to all the encouragement possible, and we hope that the trade will appreciate their efforts. Energy of this sort builds up the West, and the enterprise that this firm displays is causing the Northwest to forge ahead of some other parts of the country.

O. P. Downing & Co. have returned to San Francisco, and are now located at 264-266 Natoma street. They are well known as being distributors of some of the largest houses in the United States, and we are glad to see them back among the good people.

Walter Neblet, of Riverside, has recently bought Veck's Opera House Pharmacy, in Corona, and will shortly move from his present location.

The Strahlman-Mayer Drug Co., of San Diego, have one of the most attractive stores in the city by the Silver

Gate. They are doing a large prescription business, which indicates that they have the confidence of both the physicians and the public.

Dr. Pomeroy, of Cheney, Wash., expects shortly to be in his new store.

John B. Starkey, of Fifth and D streets, San Diego, reports doing a very prosperous business. Anyone acquainted with John B. knows the reason.

L. M. Wood, of Haywards, was successful in passing a licentiate's examination before the State Board of Pharmacy. Mr. Wood has not been in the drug business for several years, but was up in his line just the same and passed an excellent examination.

Ralph T. Duncan, of Ukiah, was one of the lucky boys before the State Board of Pharmacy for the July term.

Dr. D. M. Pratt, of Fall River, was in the city trying his conclusions before the State Board of Pharmacy. The doctor showed his ability by passing the ordeal most successfully.

Frank W. Dessel was up from Porterville taking an examination before the State Board of Pharmacy. Frank is all right, for his examination showed that he knows his business. He made a good showing and will receive his licentiate certificate.

E. J. Luttrell, the handsome young drug clerk, of Folsom, must feel in good spirits, for he held up his reputation for being well posted when he went up before the State Board of Pharmacy to receive a licentiate certificate.

Frank A. Hoffman, the "Benicia Boy," was before the State Board of Pharmacy taking the examination. Frank made a good showing and will receive his certificate.

Professor Mosetig, a celebrated surgeon and the discoverer of the use of iodoform in medicine, was drowned in the Danube in July.

ALUMNI NOTES

An enthusiastic alumnus of the California College of Pharmacy recently suggested an **Alumni scholarship**, similar to the Herbert E. Law scholarship now given. As no meeting has been held during the vacation months, the matter has not been brought before the association. However, let us hope that a scholarship will be established by the alumni, so that it can be awarded in 1908.

Mr. J. L. Justice, '06, and Miss Cecile Emanuel, both of San Francisco, were married at the home of the bride's parents on June 19, 1907. We congratulate you, Roy, and wish you both much happiness.

Mr. Ernest M. Kimberlin, '05, and Miss Eldora Persis were married on June 27, 1907, at the home of the bride's parents at Cupertino, Cal. After a brief honeymoon the happy couple will be at home to their numerous friends at Selma, Cal., where Mr. Kimberlin has built up a prosperous business.

Wirt Williams, '06, who has been with the Owl Drug Co. in Oakland, has accepted a position in Bakersfield.

Fred Pottle, '05, has taken the position left vacant at the Owl by Mr. Williams.

Prof. W. M. Searby, Dean of the California College of Pharmacy, spent a few days in the country. The "boys" will all be glad to know that the Dean is much improved by this little trip.

Mr. Cris Buck, '07, is looking after Mr. Kimberlin's store at Selma while the latter is away on his wedding tour.

Mr. H. M. McQueen, '95, is the chemist at the El Dorado Oil Works at West Berkeley.

Dr. Haydn M. Simmons a Benedict

In Oakland, Cal., July 20th, occurred the marriage of our friend Dr. H. M. Simmons and Miss Nellie Beale. The marriage was of unusual interest, as not even the most intimate friends were apprised of their purpose a day in advance of the important event. There is said to be a pretty romance connected with the names of these young people.

We are not personally acquainted

with the bride, but are informed that she is a charming young lady, especially talented in art. She is a graduate of a southern university, and also of the Mark Hopkins Institute of Art, of San Francisco. She has been one of the faithful and efficient teachers in the Polytechnic High School of this city. Her reputation as a sculptor is well known, and she executed much of the art work in the 1905 "Blue and Gold."

Dr. H. M. Simmons is a member of the faculty of both the Medical and Pharmacy Departments of the University of California, and president of the Alumni Association of the California College of Pharmacy.

The **Pacific Pharmacist** extends hearty congratulations and wishes our friend and his charming bride a happy voyage through life.

DEATH FROM LYSOL

An eight-day-old baby of Mrs. Edward de Monte was killed by its mother on the night of June 30, in Oakland. The little one was fretful and the mother asked her husband to hand her a bottle of soothing syrup from a near-by closet. De Monte arose, and in the dark picked up a bottle of lysol. A teaspoonful was administered to the baby by its mother, who soon realized that a mistake had occurred.

Dr. Carl Gambutto was summoned, but too late to save the infant. The baby's mouth and cheeks were terribly burned by the poison.

According to a dispatch from Appleton, Wis., W. F. Montgomery, druggist, received a letter from H. Morse, San Pedro, containing \$1 in stamps in payment for a bottle of patent medicine which he had taken sixteen years ago. A hurting conscience is said to have caused the act. Wonder if it took him that long to get over the effects of that bottle, and how long it would have taken him to pay for two bottles.

WANTED—A-I physician and surgeon. Good opening. Best town in California. Population 2500. A sure winner for right man. Address Box B, Corona, Cal.

Drug News

The druggists of Vancouver, Wash., have decided to voluntarily join the Sunday closing movement, as far as is possible with their business. They have reached a mutual agreement that in the future on Sundays their places of business will be opened in the morning at 8 o'clock and will be closed for the remainder of the day at 1 o'clock in the afternoon.

The company which was organized in Baltimore to handle Dermacura, the invention of Dr. H. G. Willson, of Gallup, N. M., reports that there is a rapidly growing demand for the lotion, and that a big business is to be worked up. A soap which contains 20 per cent of the lotion is being marketed and contracts have been made for a large quantity of the new soap. Dr. Willson has an interest in the company and expects to make profit out of his invention.

Flames, which started in the basement of the Raven Drug Company, 1416 Second Avenue, Seattle, Wash., entailed a loss to that company of \$6,000.00.

The Highland Park Drug Company are having all their fixtures repainted and renovated, preparatory to their removal to the new location in the Stewart Block.

MEDICINAL MUD

According to the San Bernardino "Index," there has been found in Ventura County a deposit of aluminous mud, similar to antiphlogistine, but requiring no roasting or other treatment to fit it for medicinal and surgical uses. It lies on the surface of the ground, extending to "an undetermined depth"

and over an area of seven hundred acres. All that is necessary is to shovel it up, pack it in cans, and it is ready for market. Evidently, if the sanguine expectations of the owners of the deposit are realized, this Ventura mud will be cheaper than dirt.

WHAT CONSTITUTES A DRUG STORE

We learn from Seattle "News" that the Sunday law in that city permits drug stores and restaurants to keep open on Sundays, all other stores being required to keep their doors closed. This suggests the query, "What constitutes a drug store?" The attorney-general has been appealed to to decide this knotty question, and gives his opinion as follows:

"In view of the principles announced that provisos must be strictly construed, and that the constitutionality of a law, if possible, must be sustained by construction, it is my opinion that 'drug stores,' as used in the section under consideration, contemplates only stores devoted to the exclusive sale of drugs, and does not include either drug stores or any other establishment in which soda, ice cream, confections or tobacco is sold, since such stores could as well be designed as 'candy or confectionery stores,' or 'tobacco stores.' Drug stores remaining open on Sunday, where you are enforcing the law, must limit their business to the sale of drugs exclusively, and restaurants to the serving of meals."

John McDaniel, of the Stony Ford country, announces that he has discovered a ledge of manganese over 30 feet wide and 200 feet deep in that locality.

ADULTERATION AT THE SODA FOUNTAIN

It is charged that many of the drinks dispensed at the soda fountains are flavored with adulterated syrups, i. e., syrups preserved with boracic acid and other preservatives, and colored with injurious chemicals. In some cities the pure food examiners are making trouble for the soda people. We advise our friends who dispense cool soft drinks to put their houses in order before the busy board of health inspector calls.

The American Alcohol and Sugar Company has recently been organized in Ventura county, California, for the purpose of manufacturing denatured alcohol by the Palmer method. The company is capitalized at \$1,000,000, and of this amount \$40,000 worth of stock has been subscribed, largely by farmers living in the county.

The Chehalis Produce Company, of Chehalis, Wash., is receiving large quantities of cascara bark this year. In its warehouse it has over 150,000 lbs. on hand now, and the season is by no means over. A large number of people in eastern Lewis county are busily engaged in peeling. Dealers are paying 5¾ cents per pound for the bark.

The government of the Kauagawa Prefecture, Japan, in which is situated Yokohama, is encouraging the planting of camphor trees. It is said that every piece of spare ground, even that in the school yards and about the Buddhist temples not excepted, is being used. Japan evidently expects to retain the monopoly of the camphor industry.

WANTED—Drug clerk, registered assistant or apprentice; one going to college preferred. 4144 18th Street.

THE RAH-RAH-COLLEGE WOMAN.

She's the money and she knows it—she's a co-ed and she shows it—

You can tell her by her manner—you could tell her anywhere—

She has piped the men completely and she imitates them sweetly—

She's a ducky she-collegian with a cunning college air.

She's the Rah-Rah-College Woman—so she leaves her hat at home,

And she swaggers round the campus with a book—

And she gets—or pretty near it—regulation college spirit,

And the regulation college co-ed look.

And she learns the composition of a college politician,

And she caucuses and gossips and she calls it politics—

Then she raises shocked objections to the methods of elections—

And the same she starts to purify and rectify and fix.

Oh, the Rah-Rah-College Woman! She is going to do up brown

The work that Susan B. once undertook—

She has higher education and the vim of Carrie Nation—

And the regulation college co-ed look.

She eats flicks instead of smoking—soda water 'stead of soaking—

And she learns to dope athletics with a manly sort of feel,

And she sits upon the bleachers with a wise look in her features,

Till she hears the rooters howling, then she helps them with a squeal.

She's the Rah-Rah-College Woman! So she wears her dresses short,

And she swaggers round the campus with a book—

And she has—or pretty near it—regulation college spirit,

And the regulation college co-ed look.

—The Pelican—U. C. Josh Magazine.

FOR SALE—Well-established drug store in good location; annual sales \$14,000; stock and fixtures invoice \$4,500; rent \$40. Address H. B. STANTON, 4584 18th Street.

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

ACETANILID. 1-lb. cart. incl.....lb	36	Muriatic, C. P., 6-lb bots.....lb	22
Powd., 1-lb. cart. incl.....lb	36	Muriatic, C. P., 1-lb bots.....lb	38
ACID. Acetic No. 8, carboys.....lb	07	Nitric, carboys.....lb	8
1-lb bottles, M. C. W.....lb	20	Nitric, 7-lb bots.....ea	1 10
5-lb bottles, ".....lb	15	Nitric, C. P., 7-lb bots.....lb	22
Glacial, M. C. W.....lb	44	Nitric, 1-lb bots.....lb	40
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21	Nitro-Muriatic.....lb	40
Arsenic, Hydrated Pure, Merck's.....oz	14	Nitrous, fuming.....lb	65
Arsenous, Lumps, Pure, Merck's.....oz	8	Oxalic.....lb	14-16
Arsenous, Powd., Pure, Merck's.....oz	8	Oxalic, chem. pure, M. C. W.....lb	30
Benzoic, from Toluol, M.C.W., 1-lb cart.incl lb	60	Phosphoric, glacial, Merck's.....lb	64
Benzoic, from Toluol, Merck's.....oz	13	Phosphoric, syrupy (85%).....lb	55
Benzoic, True from Benzoin, Merck's....oz	15	Phosphoric, diluted, M. C. W.....lb	25
Benzoic, English, Merck, 1-oz boxes.....oz	16	Phosphoric, M. C. W., U. S. P., 50%..lb	40
Benzoic, English, Merck's.....lb	2 24	Phosphoric, glacial, 1-oz vials.....oz	11
Benzoic, Merck's, 1-oz cartons.....oz	12	Phosphoric, glacial, 1s, M. C. W.....lb	64
Benzoic, Merck's.....lb	55-65	Picric.....lb	60-70
Boracic, crys., M. C. W.....lb	18-20	Pyrogallic, Resublimated, Merck's.....oz	27
Boracic, powd., M. C. W.....lb	18-20	Pyrogallic, Merck's, 1-lb cans.....lb	2 35
Boracic, im. powd., C. P., 1-lb cart. incl..lb	28	Pyrogallic, Merck's, 1/2-lb cans.....lb	2 45
Boracic, Squibb's, 500 gram.....	43	Pyrogallic, Merck's, 1/4-lb cans.....lb	2 55
Boric, H. P., Merck's.....lb	28	Pyrogallic, Schering's.....lb	2 50
Boric, powd., pure, Merck's.....lb	20	Pyrogallic, Schering's.....1/2-lb	2 60
Boric, Impalp., powd., Merck's.....lb	28	Pyrogallic, Schering's.....1/4-lb	2 70
Butyric, 100%, Merck's.....oz	27	Pyrogallic, Schering's, oz. vials.....oz	28
Butyric, H. P.....lb	2 14	Pyroligneous.....gal	40
Cacodylic, Merck's 1/8.....oz	4 00	Salicylic, Merck's, 1-lb cartons.....lb	46
Camphoric, Merck's.....oz	49	Salicylic, from Oil Wintergreen, Merck's.oz	44
Carbolic, Calvert's No. 1.....lb	2 00	Salicylic, Amorph., Merck's.....lb	46
Carbolic, Calvert's No. 2.....lb	1 50	Salicylic, from Wintergreen, Merck's....oz	44
Carbolic, 1-lb tin, M.C.W., gilt label....lb	30	Succinic, Merck's, oz. bottles.....oz	79
Carbolic, M.C.W., 5-lb can, gilt label....lb	26	Sulphuric, Aromatic.....lb	75
Carbolic, M. C. W., 10-lb can, gilt label..lb	25	Sulphuric, carboys.....lb	2-2 1/4
Carbolic, M.C.W., 28-lb can, gilt label....lb	23	Sulphuric, 9-lb bottles.....each	1 00
Carbolic, Loose, crys., Merck's.....lb	70	Sulphuric, C. P., 9-lb. bottles.....lb	22
Carbolic, Silver Label, Merck's.....lb	31	Sulphuric, C. P., 1-lb bottles.....lb	38
Carbolic, Solution, 1-lb. bot.....doz	2 50	Sulphurous, U. S. P., solution.....lb	25
Carbolic, Crude.....gal	40-50	Tannic.....lb	85-90
Chromic, 1-oz vials.....oz	15	Tannic, H. P., Merck's.....lb	1 71
Chrysophanic, true, M. C. W., 1-oz vials..oz	50	Tartaric, crystallized.....lb	39-45
Cinnamic, H. P., Merck's.....oz	39	Tartaric, powdered.....lb	39-45
Citric, crys.....lb	63-67	Tri-chlor-acetic, Merck's.....oz	32
Gallic, 1-oz cartons, Merck's.....oz	11	Valerianic, Merck's.....oz	20
Gallic.....lb	70	ACONITINE. Amorphous, Merck's.....dr	1 40
Hydrobromic, conc., 1-oz vials, M.C.W....oz	15	Cryst., Merck's.....dr	1 40
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34	ADAPES LANAE. B. P.....lb	35
Hydrocyanic, 1-oz vials, U.S.P., M.C.W....oz	10	AGARIC. White.....lb	45
Hydriodic (Sp. gr. 1.50), Merck's.....oz	42	ALBOLINE.....lb	50
Hydriodic (Sp. gr. 1.70), Merck's.....oz	52	5-lbs.....lb	45
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39	Liquid.....lb	50
Hydrocyanic, U. S. P., Scheele's.....oz	35	Liquid, 5-lbs.....lb	45
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30	AGURIN.....oz	1 70
Hydrofluoric, 1/2s, g. p. bots. incl. "....lb	1 80	ALBUMEN. Egg.....lb	1 45
Hydrofluoric, 1/4s, g. p. bots. incl. "....lb	2 25	ALCOHOL. Absolute.....qt	1 00
Hydrofluoric, 1-oz g. p. bots. incl. "....lb	37	94%, 10-gal. case.....gal	2 85
Hypophosphorous, 50%, 1-lb G. S. B. "....lb	1 24	94%, 5-gal. case.....gal	2 90
Hypophosphorous, 50%, 1-oz G. S. B. "....oz	19	Denatured, 5-gal can.....gal	73
Lactic, conc., 1-oz vials, M. C. W.....oz	12	Wood, 5-gal. case.....gal	75
Lactic, conc., 1s, Merck's.....lb	79	Wood, Columbian Spirits, 5 gal. in case.gal	1 02
Lactic, dilute, 1-oz vials, M. C. W.....oz	8	Wood, Columbian Spirits, barrels.....gal	85
Muriatic, carboys.....lb	3 1/4	Wood, Columbian Spirits, 1/2 barrels....gal	95
Muriatic, 6-lb bots.....each	75		

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Cologne Spirits, 5 cents advance over price of Alcohol.			
ALDEHYDE. Conct., Merck's	oz	25	
ALLSPICE.	lb	17	
Powdered	lb	20	
ALMOND MEAL.	lb	45	
ALMONDS. Bitter, shelled.	lb	45	
Sweet, shelled.	lb	45	
ALOIN. 1-oz vials	oz	12	
ALUM. Ammonio-Ferric, M. C. W.	lb	34	
Chrome	lb	21	
Burnt	lb	15	
Ground	lb	7-9	
Lump.	lb	5-8	
Powdered.	lb	7-9	
ALUMINUM. Aceto-Tartrate, M. C. W.	oz	20	
Bromide, M. C. W.	oz	29	
Chloride, M. C. W.	lb	79	
Chloride, M. C. W.	oz	14	
Hydrated, pure, M. C. W.	lb	79	
Metallic, M. C. W.	oz	17	
Sulphate, pure, M. C. W.	lb	25-29	
Sulphate, H. P., Merck's	lb	59	
ALUMNOL	oz	60	
AMIDOL. 1-oz. can	oz	65	
AMMONIA. Spirits of	lb	75	
Spirits of, aromatic	lb	75	
Aqua, 26 deg., 1-lb. bot.	lb	20	
Aqua, 26 deg., 4-lb bot.	lb	16	
Aqua, 26 deg., 5 gal. can.	lb	11	
Aqua, 26 deg., carboy.	lb	9½	
Aqua, Washing, 5-gal. can.	gal	50	
AMMONIUM. Acetate, cryst., M. C. W.	oz	14	
Arsenate, 1-oz vials, M. C. W.	oz	22	
Benzoate, 1-oz vials, M. C. W.	oz	14	
Benzoate, M. C. W.	lb	14	
Bichromate, 1-oz vials, M. C. W.	oz	14	
Bromide, 1-oz vials, M. C. W.	oz	10	
Bromide, M. C. W.	lb	46	
Carbonate.	lb	15-18	
Carbonate, powdered	lb	20	
Carbonate, C. P., Squibb's, 1-500 gram.		45	
Citrate, 1-oz. vials, M. C. W.	oz	16	
Hypophosphite, 1-oz vials, M. C. W.	oz	21	
Hypophosphite, M. C. W.	lb	70	
Iodide, 1-oz. vials, M. C. W.	oz	38	
Muriate, lump.	lb	14-16	
Muriate, gran.	lb	10-12	
Muriate, gran., pure, 1-lb cartons.	lb	20	
Muriate, powdered, pure.	lb	19	
Muriate, Po.	lb	19	
Muriate, Po., Squibb's	lb	35	
Nitrate, H. P., Merck's	lb	44	
Nitrate, cryst., refined	lb	37	
Oxalate, H. P., Merck's.	lb	85	
Phosphate	lb	84	
Salicylate, Merck's	lb	10	
Salicylate, Merck's	oz	13	
Succinate.	oz	79	
Sulphate, com'l	lb	12	
Sulphate, C. P., Merck's	lb	29	
Sulpho Cyanate, pure	oz	10	
Valerianate, cryst., 1-oz vials.	oz	24	
Valerianate, cryst.	lb	75	
AMMONOL	oz	105	
AMYL. Acetate	lb	69	
Butyrate, M. C. W.	oz	30	
Nitrite, Merck's	oz	29	
Valerianate, M. C. W.	lb	259	
ANNATTO. Roll	lb	60	
ANODYNE. Hoffman's, 1-lb bottle.	lb	75	
ANTHRASOL	oz	60	
ANTIFEBRIN. Merck's	oz	17	
ANTIKAMNIA and its combinations.	oz	100	
10-oz lots for \$9.25; 25-oz for \$22.80			
Tablets, Vest Pocket	doz	75	
Tablets, Vest Pocket, 1 gross, 5% off.			
ANTIMONY. Black, powdered, pure.	lb	15	
Black, powdered, commercial	lb	10	
Chloride, cryst., 1-oz vials.	oz	22	
Chloride, sol. (Butter of)	lb	39	
Oxysulphuret (Kermes Mineral)	lb	100	
Potassium Tartrate, powdered	lb	42	
Sulphuret, precipitated	lb	92	
ANTINOSINE	oz	210	
ANTIPYRIN. Knorr's	oz	35	
New	oz	25	
APIOL. Fluid Green, Merck's.	oz	37	
APOLSYIN. S. & G.	oz	65	
APOMORPHINE. Hydrochlor. Am or.,			
Merck's, ⅛-oz vial	oz	350	
Mur. cryst.	oz	850	
Muriate, Amorphous, ⅛-oz vials, M.C.W.	oz	350	
ARISTOL	oz	180	
ARGOLS. Red	lb	15	
Red, powdered	lb	20	
ARGYROL	oz	150	
ARROWROOT. St. Vincent.	lb	18-20	
Taylor's Bermuda, ¼s and ½s.	lb	35	
Taylor's Bermuda, bulk	lb	35	
ARSENIC. Bromide, 1-oz vials, M. C. W.	oz	27	
Chloride, sol., M. C. W.	lb	30	
Iodide, 1-oz vials, M. C. W.	oz	44	
Metallic	lb	45	
Red, powdered	lb	15	
Solution (Donovan's)	lb	40	
Solution (Fowler's)	lb	30	
Sulphured, red powdered	lb	33	
Sulphured, yellow powdered	lb	33	
White, lump	lb	30	
White, powdered, commercial.	lb	18	
Yellow (orpiment)	lb	35	
ASBESTOS. Fibrous, gro.	lb	20	
ASPARAGIN. ⅛-oz vials	oz	150	
ASPIRIN	oz	43	
ATROPIA. Pure, ⅛-oz vials, Merck's.	oz	670	
Sulphate, ⅛-oz vials, Merck's	oz	565	
BALSAM. Copaiba, 8-lb can.	lb	135	
Copaiba, 5-lb bottle.	lb	140	
Copaiba, 1-lb bottle.	lb	150	
Copaiba, solidified.	lb	150	
Fir, Canada.	lb	70-75	
Fir, Oregon.	lb	50-55	
Gurgun	lb	40	
Peru	lb	325-350	
Sulphur	lb	60	
Tolu	lb	75	
BARIUM. Acetate, 1-oz vials, M. C. W.	oz	16	
Carbonate, M. C. W.	lb	37	
Carbonate, precip., Merck's	lb	30	
Chloride, chemically pure, M. C. W.	lb	38	
Chloride, H. P., cryst., Merck's.	lb	38	
Nitrate, M. C. W.	lb	23	
Nitrate, H. P., cryst., Merck's.	lb	37	
Sulphide, commercial, Merck's.	lb	43	
Sulphide, pure, Merck's	lb	53	
Sulphate, M. C. W.	lb	13	
BARK. Alder, black, pressed, 1-lb.	lb	25	
Alder, red or tag, pressed, 1-lb.	lb	24	

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Angostura	lb	30	Wild Cherry, ground.	lb	18
Ash, black, pressed, 1-lb.....	lb	20	Wild Cherry, powdered	lb	20
Ash, mountain, pressed, 1-lb.....	lb	24	BAY RUM. Domestic	gal	2 25
Ash, white, pressed, 1-lb.....	lb	25	Imported	gal	3 00
Barberry, pressed, 1-lb.....	lb	30	BEANS. Calabar.	lb	40
Barberry, powdered	lb	35	Tonka, Angostura	lb	1 35
Bayberry, pressed, 1-lb.	lb	25	Vanilla, short, true Mexican.....	lb	8 50
Bayberry, powdered.	lb	30	Vanilla, long, true Mexican.....	lb	9 50
Birch, pressed, 1-lb.....	lb	24	Vanilla, Tahita	lb	1 25-1 50
Black Haw, powdered	lb	35	BEBEERINE. Pure, 1-oz vials	oz	2 04
Black Haw, pressed, 1-lb.....	lb	30	Sulphate, 1-oz vials	oz	1 49
Black Willow, pressed, 1-lb.....	lb	25	BENZOLE. Pure	lb	35
Blackberry.	lb	20	H. P., Merck's	lb	37
Buckhorn, pressed, 1-lb	lb	25	BENZIN. Gallon		30
Butternut, pressed, 1-lb	lb	25	5 and 10 gallons	gal	25
Calisaya, yellow, commercial.	lb	30	Pints	doz	1 60
Calisaya, yellow, commercial, powd.....	lb	32	BERBERINE. Hydrochloride, Merck's....	oz	2 29
Calisaya, East India.	lb	42	Sulphate, Merck's	oz	2 29
Calisaya, powdered.	lb	45	BERRIES. Buckthorn	lb	30
Canella	lb	30	Cocculus Indicus	lb	15
Canella, powdered	lb	35	Cubeb, stemless	lb	25
Cascara, Sagrada.	lb	18	Cubeb, powdered	lb	30
Cascara, Sagrada, powdered.	lb	20	Elder	lb	30
Cascarilla	lb	25	Juniper, Italian	lb	10
Cascarilla, powdered	lb	30	Poke	lb	25
Cassia.	lb	22	Prickly Ash.	lb	40
Cassia, powdered	lb	25	Sumac	lb	25
Cinchona, red.	lb	45-50	Sumac, powdered	lb	30
Cinchona, red powdered.	lb	45-50	BETOL	lb	60
Cinnamon, Ceylon.	lb	40 50	BISMUTH. Acetate, M. C. W.	oz	34
Cinnamon, Ceylon, powdered.	lb	40-50	Citrate, M. C. W.	lb	2 64
Cotton Root, powdered.	lb	35	Citrate, M. C. W.	oz	24
Cotton Root, pressed, 1-lb.....	lb	35	Citrate and Ammonia, M. C. W.....	oz	24
Cramp, powdered	lb	25	Citrate and Ammonia, M. C. W.....	lb	2 64
Cramp, pressed, 1-lb	lb	25	Lactate	oz	42
Cundurango	lb	45	Metallic	lb	2 25
Cundurango, powdered	lb	50	Nitrate, M. C. W.	oz	23
Dogwood, pressed, 1-lb.....	lb	20	Oxide, Hydrated, M. C. W.....	lb	3 33
Dogwood, powdered	lb	25	Oxide, Hydrated, M. C. W.....	oz	32
Elder, pressed, 1-lb.....	lb	35	Oxychloride, M. C. W.....	lb	2 72
Elm, select, slabs.	lb	30	Salicylate, 40%, Merck's.....	oz	22
Elm, ground, bulk	lb	30	Salicylate, 64% Basic, Merck's.....	oz	24
Elm, powdered	lb	30	Salicylate, 64%, M. C. W.....	lb	2 65
Elm, powdered, 1/4s.....	lb	30	Subbenzoate.	oz	32
Elm, powdered, 1/8s.....	lb	35	Subcarbonate	lb	2 75
Elm, powdered, ozs.....	lb	40	Subgallate, Merck's	oz	26
Hemlock, pressed, 1-lb.	lb	25	Subiodide, M. C. W.	lb	4 59
Hemlock, powdered.	lb	30	Subiodide, 1-oz vials, M. C. W.....	oz	36
Jamaica Dogwood, pressed, 1-lb.....	lb	35	Subnitrate, M. C. W.....	lb	2 42
Jamaica Dogwood, powdered, 1-lb.....	lb	35	Tannic, 1-oz vials, M. C. W.....	oz	25
Mezereon, pressed, 1-lb.....	lb	28	Valerianate, 1/8s.....	oz	60
Oak, red, pressed, 1-lb.....	lb	22	BLUE MASS	lb	60
Oak, white, powdered.	lb	22	Powdered	lb	62
Oak, white, pressed, 1-lb.....	lb	22	BLUE VITROL. Barrels, 9.....	lb	12-15
Poplar, white, powdered, 1-lb.....	lb	25	Powdered	lb	18
Poplar, white, pressed, 1-lb	lb	25	BOLE. Armenian	lb	18
Poplar, yellow, pressed, 1-lb.....	lb	25	BONE ASH	lb	6-8
Prickly Ash, powdered	lb	40	BORAX. C. P., Squibb's	lb	33
Prickly Ash, pressed, 1-lb.....	lb	33	Pacific Coast Borax Co., 1-lb.....	doz	1 14
Quebracho	lb	35	Pacific Coast Borax Co., 3/4-lb.....	doz	90
Sassafras.	lb	28	Pacific Coast Borax Co., 1/4-lb.....	doz	48
Sassafras, powdered	lb	25	Powdered	lb	10-12
Simaruba	lb	50	Pure Granular	lb	25
Soap Tree	lb	9-10	Refined	lb	10-12
Soap Tree, ground	lb	15	BOROFORMOL. Pints	doz	7 50
Soap Tree, powdered.	lb	15	BOROLYCEERIDE Solution.	lb	60
Sumac, pressed, 1-lb.....	lb	25	BROMOFORM	oz	22
Tamarac, pressed, 1-lb	lb	25	BROMINE	lb	83
Wahoo Root, pressed, 1-lb.....	lb	33	Chloride, solution	oz	60
Wild Cherry.	lb	16	BRUCINE. 1/8-oz vials, M. C. W.....	oz	1 75

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BRUCINE. Merck's	oz	1 75	Turner's	lb	60
Phosphate, Merck's	oz	1 75	Zinc, Carbonate, true	lb	60
Sulphate, Merck's, 1/8-oz vials.....	oz	1 75	Zinc, Oxide	lb	60
BUDS. Balm of Gilead	lb	60	CERIUM. Oxalate, Merck's	oz	09
Cassia	lb	45	Oxalate, 1-lb cartons	lb	47
BUTTER CACAO. Ghirardelli.	lb	60	CHALK. Crayons, white	lb	15
German.	lb	62	French, cut	lb	18-20
CADMIUM. Bromide, M. C. W.....	oz	20	French, powdered	lb	5-8
Iodide, M. C. W., 1-oz vials.....	oz	33	Precipitated, English	lb	10-12
Sulphate, M. C. W., 1-oz vials.....	oz	24	Prepared in drops, bulk	lb	7-8
CAFFEIN. Bromide, 1-oz vials.....	oz	31	Prepared in drops, 5-lb boxes.....	lb	8-10
1/8-oz vials	oz	51	Prepared pink, 8-lb boxes.....	lb	10
Citrated, Merck's	oz	23	White, in lumps	lb	3-4
Pure, Merck's	oz	29	CHARCOAL. Animal	lb	8-10
Sulphate, 1/8-oz vials, Mallinckrodt's.....	oz	55	Willow, powdered	lb	15-20
Salicylate, true salt, 1/8s, Mallinckrodt's.....	oz	55	CHINA CLAY	lb	10
CALAMINE	lb	18	CHINESE SHAVINGS	lb	60
CALCIUM. Bromide, 1-oz vials, M. C. W.....	oz	12	CHINOIDINE. 1-oz rolls	oz	12
Bromide, M. C. W.....	lb	64	CHLORAL HYDRATE, CROTON, 1-oz vial		
Chloride, fused, M. C. W.....	lb	64	incl.	oz	35
Chloride, granular, M. C. W.....	lb	30	Crystals, Merck's	lb	1 35
Glycerylphosphate	oz	22	Crystals, Merck's, 1/2s.....	lb	1 45
Hypophosphite, 1-oz vials.	oz	14	Crystals, Merck's, 1/4s.....	lb	1 55
Hypophosphite.	lb	89	Crystals, Merck's, oz.....	lb	2 10
Hypophosphite and Sodium, 1-oz vials...oz		16	Crystals, M. C. W., 1s.....	lb	1 35
Hypophosphite and Sodium, M. C. W...lb		1 09	Crystals, M. C. W., 1/2s.....	lb	1 45
Iodide, 1-oz vials, M. C. W.....	oz	37	Crystals, M. C. W., 1/4-lb cartons.....	lb	1 50
Lactophosphate, soluble	lb	1 35	Crystals, M. C. W., ozs.....	lb	2 10
Lactophosphate, soluble	oz	17	Crystals, 1-lb g. s. b. incl., Schering.....	lb	1 35
Phosphate, precipitated, 1-lb cart.....	lb	20	Crystals, 1/2-lb g. s. b. incl., Schering....	lb	1 45
Phosphide, 1-oz vials	oz	50	Crystals, 1/4-lb g. s. b. incl., Schering....	lb	1 55
Sulphate, pure	lb	49	Crystals, 1-oz g. s. vls. incl., Schering....	oz	17
Sulphide, 1-oz vials	oz	10	CHLORALAMID	25 gramme	80
Sulphide	lb	37	CHLOROFORM. 1-lb tin.....	lb	52
Sulphite	lb	84	In 7-lb bottle	lb	42
Sulpho, carbolate, M. C. W.....	oz	11	Squibb's, 1-500 gramme.	lb	90
CALOMEL. Bulk.	lb	1 00	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz		25
English, Howard's	lb	1 35	Bisulphate, M. C. W.	oz	18
CAMPHOR. Monobromated, Mallinckrodt's.....	oz	27	Muriate, M. C. W.....	oz	17
Tar flake.	lb	5-7	Sulphate, 1-oz vials, M. C. W.....	oz	17
Tar balls.	lb	5-7	CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz		50
CANDY. Coltsfoot Rock	lb	30	Bisulphate, 1-oz vials, M. C. W.....	oz	30
Horehound.	lb	12	Muriate, M. C. W.	oz	32
Rock, on strings	lb	15	Salicylate, 1-oz vials, M. C. W.....	oz	34
Rock, brown	lb	16	Sulphate, 1-oz vials, M. C. W.....	oz	30
Rock, red	lb	15	Sulphate, 5-oz cans, M. C. W.....	oz	25
Rock, white	lb	14	CLOVES. Zanzibar	lb	30
CANTHARIDES, Russian, powdered.....	lb	1 35	Zanzibar, powdered	lb	35
Chinese, powdered	lb	1 00	COBALT	lb	25
CAPSICUM. African, pods	lb	25	Cobalt, powdered	lb	30
African, powdered	lb	30	COCAINE. Alk., 1-oz vials, incl.....	oz	3 60
Bombay	lb	20	Hydrochloride, Merck's	oz	2 85
CARAMEL	gal, \$1.25.	30	Hydrochloride Cryst., 1-oz v'ls, M.C.W....	oz	2 85
CARBON. Bisulphide	lb	17	Hydrochloride Cryst., 1/2-oz v'ls, M.C.W....	oz	3 00
Bisulphide, 50-lb cans.....	can	4 73	Hydrochloride Cryst., 1/4-oz v'ls, M.C.W....	oz	3 10
Bisulphide, Wheeler's 50-lb can.....	ea	4 73	Hydrochloride Cryst., 1/8-oz v'ls, M.C.W....	oz	3 25
Bisulphide, 1-gal cans.	gal	1 35	COCHINEAL. Honduras.	lb	60
Bisulphide, quart bottles	doz	4 50	Honduras, powdered.	lb	65
Bisulphide, Purif., Merck's.....	lb	49	CODEINE. Merck's Pure.....	oz	5 55
CARMINE. No. 40.	oz	40	Muriate	1-oz, \$5.30.....	1/8s 5 50
No. 40.	lb	4 50	Phosphate, 1/8-oz vials.....	oz	5 25
CASSIA FISTULA	lb	20	Sulphate, M. C. W.....	oz	5 30
CASTOR FIBER.	oz	1 50	COLLODION	lb	90
Castor Fiber, powdered	oz	1 75	1-oz vials	doz	1 25
CERATE. Cantharides	lb	1 00	Cantharidal	lb	2 35
Goulard's, U. S. P.	lb	70	Cantharidal, 1-oz vials	doz	2 20
Resin, U. S. P.	lb	50	Flexible	lb	1 00
Savin	lb	60	Flexible, 1-oz vials	doz	1 50
Simple	lb	50	COLCHICINE. cryst., Merck's, 15-grain...gr		14
Spermaceti	lb	70	C. P., Amorph., 15-grain vials.....	gr	30

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COLOCYNTH. Apples, Trieste.....lb	60-65	ERGOTOLE. S. & D.....doz	4 50
Apples, powdered.....lb	75	ESERINE (Physostigmine), 5 gr Alkaloid, Merck's.....gr	13
COMPOSITION POWDER, 2-oz papers..lb	35	Sulphate, 5-gr vials, Merck's.....ea	50
CONFECTION. Aromatic.....lb	1 00	Sulphate, 10-gr vials, Merck's.....ea	1 00
Opium.....lb	1 50	Sulphate, 15-gr vials, Merck's.....ea	1 50
Rose, U. S. P.....lb	65	ETHER. Acetic, M. C. W., 1-lb bot.....lb	59
Senna, U. S. P.....lb	70	Benzoic, 1-oz bot.....oz	34
Theriac.....lb	1 25	Butyric, 1-lb bot.....lb	1 70
COPPER. Acetate, cryst., C.P., M.C.W.....lb	74	Chloric, U. S. P., M. C. W., 1-lb bot.....lb	64
Acetate, com'l, lump.....lb	40	Chloric, concent., M. C. W., 1-lb bot.....lb	74
Acetate, Po. Verdigris.....lb	45	Formic, 1-lb bot.....lb	1 59
Ammoniated.....lb	59	Hydrobromic, 1-oz bot.....oz	20
Arsenite, 1-oz vials, M. C. W.....oz	19	Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 20
Arsenite, 1-oz vials.....oz	19	Nitrous, conc., M. C. W., ½-lb bot.....lb	1 10
Bromide.....oz	32	Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00
Iodide, M. C. W.....oz	44	Nitrous Spirit, 4-lb bot.....lb	58
Nitrate.....lb	54	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can..lb	81
Sulphate, C. P., granulated, 1-lb. boxes..lb	23	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can..lb	78
Sulphate, Caustic Pencils, Merck's.....doz	1 75	Sulphuric, conc., 1-lb can.....lb	87
Sulphate, purified, 1-lb cartons.....lb	21	Sulphuric, conc., 3-lb can.....lb	84
COPPERAS. bbls 1¼.....lb	3-4	Sulphuric, washed, 1-lb bot.....lb	87
CORROSIVE SUBLIMATE.....lb	92	Sulphuric, Squibb's, in 1-500 gm cans....ea	1 35
Powdered.....lb	95	Sulphuric, Squibb's, in 1-250 gm cans....ea	72
COTOIN. Para, Merck's, ⅛-oz.....oz	14 00	Sulphuric, Squibb's, in 1-100 gm cans....ea	33
COTTON. Negative.....oz	60	Valerianic.....oz	44
COWHAGE. 1-oz cans.....oz	55	ETHYL. Bromide, Merck's.....oz	20
CREAM TARTAR, pure, powdered.....lb	34-37	Chloride, 10 gramme tubes Bengue.....doz	5 00
Pure, powdered, 25-lb box.....lb	30	Chloride, 30 gramme tubes Bengue.....doz	10 00
CREOLIN. ½-lb.....doz	4 00	Chloride, Merck's, 10 gramme.....ea	40
1-lb.....doz	8 00	Iodide (see Hydriodic Ether), Merck's..oz	54
CREOSOTE. Beechwood, Merck's.....lb	94	EUCALYPTOL. Merck's.....oz	16
Merck's, ½-lb.....lb	1 10	EUCAINE. A or B, ⅛s.....oz	3 60
Merck's, ¼-lb.....lb	1 20	EUDOXINE.....oz	2 10
CREOSOTE CARBONATE.....oz	65	Tablets, 3-gr.....oz	2 60
In ¼-lb.....lb	9 25	Tablets, 5-gr.....oz	2 50
In ½-lb.....lb	9 15	Tablets, 1-3 gr, ¼-oz bots.....oz	3 00
In 1-lb.....lb	9 10	EUKATROL, powd.....oz	1 00
CROCUS MARTIS.....lb	16	Tablets.....oz	1 00
CUDBEAR.....lb	30	EUROPHEN.....oz	1 80
CUMARIN.....oz	45	EXALGINE.....oz	1 50
CUMENE (Cumol), Merck's.....lb	1 10	EXTRACT. Licorice, Corigliano.....lb	45
CURCUMA. Powdered.....lb	16	Licorice, Mellor & Rittenhouse.....lb	27-30
CUTTLEFISH.....lb	35	Licorice, M. & R., 25 and 50-lb box....lb	26
Jeweler's.....lb	85	Licorice, soft, perf., clearly soluble....lb	75
Powdered.....lb	30	Licorice, Y. & S.....lb	27-30
DATURINE. Alk., cryst., 5-gr, Merck.....ea	75	Licorice, powd.....lb	35
DEXTRIN.....lb	12-15	Logwood, bulk.....lb	15
DIASTASE. of Malt.....oz	1 14	Logwood, ¼s.....lb	20
DIGALEN. ½-oz bottles.....ea	1 00	Logwood, ½s.....lb	18
DIGITALIN. ⅛-oz vials, Merck's.....oz	5 75	Logwood, 1s.....lb	16
DIONIN. ⅛s, Merck's.....oz	6 25	Male Fern, U. S. P., Merck's.....lb	2 25
15-gr vials, Merck's.....ea	35	Malt, dry, Merck's.....lb	1 25
DOVER'S POWDER, U. S. P.....lb	1 50	Opium, Aqueous, dry, Merck's.....oz	1 04
DRAGON'S BLOOD, Mass.....lb	55	Witch Hazel.....gal	1 10
Powdered.....lb	65	Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05
Reed's.....lb	85	Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00
DIURETIN.....oz	1 80	FAREOL.....oz	50
DUBOISINE, Sulphate, Merck's, 10-gr vial..	1 10	FENETOLE.....lb	2 00
EARTH, Fuller's, powdered.....lb	8-10	FERRATIN. Powder or tablets.....oz	85
EIKONOGEN, lb, \$3.95; ½s, \$4.20.....oz	37	FLAKE WHITE. English.....lb	15
¼s.....lb	4 80	FLOUR. Gluten.....lb	15
ELATERIN, Merck's, 15-gr vial.....	1 25	Rice.....lb	12
ELATERIUM, ⅛-oz vials.....oz	3 00	FLOWERS. Althea.....lb	40
EMERY. Flour.....lb	10-12	Arnica.....lb	18-20
Grain.....lb	10-12	Arnica, powd.....lb	23-25
EMETIN (Resinoid), Merck's.....oz	7 53	Calendula, new.....lb	90
(Alkaloid), pure, Merck's, 15-gr vial.....	1 25	Chamomile, German, new.....lb	37
ERGOT. Spanish.....lb	65	Chamomile, Roman.....lb	45
Spanish, powd.....lb	65	Elder.....lb	30
ERGOTIN. Ergotin-Bonjean, Merck's.....oz	39		

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X

Elder, pressed. oz	25	Camphor, 24 to lb.....lb	1 42
Kooso. lb	75	Camphor, powd. lb	1 55
Kooso, powd. lb	80	Catechu, refined. lb	18
Lavender. lb	35	Catechu, powd. lb	30
Mullein.....lb	1 00	Copal lb	35
Orange.....lb	1 10	Damar. lb	38
Poppy, red. lb	75	Galbanum. lb	1 00
Rose, red. lb	1 20	Gamboge lb	1 10
Rosemary. lb	35	Gamboge, powd. lb	1 15
FLOUR SPAR. Powdered.....lb	25	Guaiaac. lb	35
FORMALDEHYDE. Merck's. lb	32	Guaiaac, powd. lb	40
5-lb bot. lb	25	Kino, true. lb	75
FORMALIN. S. & G. lb	40	Kino, true, powd.....lb	80
FORMIN. Merck's. oz	21	Mastic tears. lb	85
GADUOL. Merck's. oz	37	Myrrh, Turkey. lb	35
GAMBIER. lb	15	Myrrh, Turkey, powd.....lb	40
GARANTOSE. 550 times sweeter than sugar.		Olibanum tears lb	30
1-lb cans, Merck's.....lb	2 25	Opium lb	8 00
1-oz cans, Merck's.....oz	20	Opium, powd. lb	9 00
GELATIN. Cooper's, 12-lb case.....lb	65	Sandarac. lb	45
Coxe's. doz	1 50	Scammony, Aleppo. oz	40
French Pink. lb	75	Scammony, Virgin, true.....oz	75
French Gold Label. lb	55	Shellac, bleached. lb	75
French Silver Label.....lb	40	Shellac, orange. lb	70
GLASS. Powdered. lb	15	Shellac, ground. lb	75
Soluble. lb	25	Spruce.....lb	1 50
GLUCOSE. 1-lb bot.....lb	20	Tamarac, true. lb	1 25
GLUE. Common. lb	15	Thus. lb	12
White, No. 1. lb	25	Tragacanth, ribbon. lb	90
GLUTOL oz	65	Tragacanth, powd. lb	80
GLYCERINE. Price's. lb	70	GUTTA PERCHA. Crude, shavings.....lb	1 75
Pure, in 10-lb cans.....lb	19 1/2	Crude, sheets. lb	1 75
Pure, in 50-lb cans.....lb	17	HEDONAL. oz	1 60
GLYCEROPHOSPHATES. Iron, Merck's..oz	32	HEMICRANIN oz	90
Lime, Merck's. oz	22	HEMOGALLOL. Merck's. oz	80
Potash, Merck's oz	29	Tablets, Merck's. 100	80
Soda, Merck's. oz	28	HEROIN. 1-oz. oz	4 85
GLYCYRRHIZIN. Ammoniated, Merck's..oz	29	1-oz, 1/2-oz vials.....oz	5 00
Ammoniated, Merck's. lb	3 10	1/4-oz. oz	5 15
GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70	15-gr vials. ea	23
Chloride, 15-gr vials, M. C. W.....doz	5 10	Hydrochloride, oz vials.....oz	4 85
Mono-bromide, Merck's, 15-gr vials.....ea	1 25	1/2-oz. oz	5 00
Tri-bromide, Merck's, 15-gr vials.....ea	1 00	1/2-oz, 1/4-oz vials.....oz	5 15
Tri-cyanide, Merck's, 15-gr vials.....ea	2 00	15-gr vials. ea	23
GOOSE GREASE. lb	60	HEXAMINE oz	36
GRAINS. Paradise. lb	40	Tablets. oz	40
Powdered. lb	45	HIERA PICRA. lb	50
GUAIACOL. Carb. oz	1 50	HOFFMAN'S ANODYNE. lb	75
Merck's. oz	18	HOMATROPINE, Alk'l'd, 5-gr vials, Merck's.ea	2 25
GUARANA. Powd. lb	4 75	HOMATROPINE, Alk., 5-gr v'ls, Merck..ea	2 25
GUM. Aloes, Barbadoes.....lb	50	Hydrobromate, 5-gr vials, Merck's.....ea	1 75
Aloes, Barbadoes, powd.....lb	55	Hydrochlorate, 5-gr vials, Merck's.....ea	2 10
Aloes, Cape. lb	20	HOMOGLOBIN, powd., Merck's.....oz	1 04
Aloes, Cape, powd.....lb	20-25	HOPS, new, bulk. lb	37
Aloes, Socotrine lb	40	New, ozs. lb	50
Aloes, Socotrine, powd.....lb	40	New, 1/4s, 1/2s. lb	40
Ammoniac tears. lb	40	HYDROCHINON, Merck's. oz	18
Arabic, Turkey, first pick.....lb	55	Merck's. lb	1 42
Arabic, Turkey, second pick.....lb	40	HYDROGEN PEROXIDE, Drevet's U.S.P.,	
Arabic, Turkey, sifted sorts. lb	20	1-lb bots. doz	3 00
Arabic, first pick, granulated.....lb	58	Drevet's U.S.P., 1/2-lb bots.....doz	1 90
Arabic, first pick, powd.....lb	60-65	Drevet's U.S.P., 1/4-lb bots.....doz	1 40
Asafoetida, Calcutta. lb	40	Marchand's, 1-lb bots.....doz	8 00
Asafoetida, powd. lb	45	Marchand's, 1/2-lb bots.....doz	5 25
Asphaltum. lb	15	Marchand's, 1/4-lb bots.....doz	3 80
Benzoin, marble, select. lb	50	Marchand's, 1/8-lb bots.....doz	2 25
Benzoin, powd. lb	55	M. C. W., 1-lb bots.....doz	3 00
Camphor, bulk lb	1 39	M. C. W., 1/2-lb bots.....doz	1 80
Camphor, 1-oz blocks.....lb	1 42	M. C. W., 1/4-lb bots.....doz	1 20

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Oakland, 1-lb bots.....doz	6 50	Oxide, brown, pure, Merck's.....lb	74
Oakland, ½-lb bots.....doz	4 00	Peptonized, Merck's. oz	24
Oakland, ¼-lb bots.....doz	2 25	Phosphate, precipitate. lb	39
Oakland, 5-lb bots.....ea	1 59	Phosphate, U. S. P., scales.....oz	11
HYDRO NAPHTHOL. oz	75	Phosphate, U. S. P., scales.....lb	65
HYDRASTINE, Alkaloid, Merck's.....oz	10 04	Pyrophosphate, soluble, Merck's.....lb	77
Hydrochloride, Merck's. oz	10 04	Pyrophosphate, U. S. P., 1880.....oz	11
HYDRASTININE, Hydrochloride, Merck's,		Pyrophosphate, U. S. P., 1880.....lb	77
15-gr vials. ea	2 10	Reduced (Quevenne's) lb	58
HYDROQUINONE, Merck's. oz	18	Reduced (Quevenne's) oz	10
HYOSCINE, Amorphous, Merck's, 15-gr		Salicylate, 1-oz vials, M. C. W.....oz	15
vials. ea	2 00	Subsulphate, M. C. W.....oz	6
Hydrobromate, 5-gr vials, Merck's.....ea	2 00	Subsulphate, M. C. W.....lb	36
Hydriodide, 5-gr vials, Merck's.....ea	2 00	Subsulphate, sol., M. C. W.....lb	23
Sulphate, 5-gr vials, Merck's.....ea	2 00	Succinate, Merck's. oz	54
HYOSCYAMINE, Alkaloid, crys., Merck's,		Sulphate, dried. lb	20
15-gr vials. ea	4 75	Sulphate, gran., pure.....lb	18
Amorphous, Merck's. gr	25	Sulphate, pure, cryst., M. C. W.....lb	20
Hydrobromate, Amorph., Merck's, 15-gr.....ea	3 00	Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13
Sulphate, crys., Merck's, 15-gr.....ea	3 03	Tannate, 1-oz vials, M. C. W.....oz	22
Sulphate, Amorph., 5-gr vials, Merck's....ea	1 25	Tartrate and Ammonia, M. C. W.....oz	11
IATROL. oz	95	Tartrate and Ammonia, M. C. W.....lb	72
ICHTHARGAN, Merck's. oz	3 00	Tartrate and Potassium, M. C. W.....oz	10
ICHTHOFORM, Merck's. oz	1 00	Tartrate and Potassium, scale, M. C. W...lb	58
ICHTHYOL, 1-oz vials, Merck's.....oz	32	Tersulphate, sol., U. S. P.....lb	40
¼s, Merck's. oz	4 25	Valerianate. oz	22
½s, Merck's. oz	4 10	IODOTHYRINE. oz	3 40
1s, Merck's. oz	4 00	ISINGLASS, American. lb	1 25
INDIGO, Manila, extra.....lb	75	Russian. lb	5 25
IODIPIN (10% Iodized Sesame oil),		KAMALA. lb	65
Merck's. oz	28	Powd. lb	75
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47	KAOLIN.....lb	10
Chloride, 1-oz vials, M.C.W.....oz	52	KERATIN (Pepsinized), Merck's, ½s.....oz	3 53
Resublimed, 1-oz vials, M. C. W.....oz	35	KOUSSO. lb	75
Resublimed, M. C. W.....lb	3 43	Powd.....lb	75
Burnham's, soluble. oz	1 00	KRYOFINE. oz	1 00
IODOFORM, bulk, M. C. W.....lb	3 85	LACTUCARIUM, Merck's. oz	54
Cryst. or powd., Merck's.....oz	34	LACTOPHEPIN. oz	1 00
Deodorized. oz	54	LANOLIN. lb	80
IODOL. oz	1 25	Lanae Adeps, 1-lb cans, B. J. D.....lb	35
IRON, Acetate, dry, 1-oz vials, M.C.W....oz	24	Lanae, British. lb	35
Acetate, liquor. lb	44	LANUM (Adeps Lanae Hydrosus), Merck's.lb	40
Albuminate. oz	20	LARD, Benzoated, 5-lb cans.....lb	28
Ammoniated, M. C. W.....lb	44	LARGIN, Merck's oz	1 75
And Ammonium Cit., Merck's.....lb	79	LEAD, Acetate, med. crys. or gran.,	
Arseniate, 1-oz vials. oz	18	Merck's. lb	33
By Hydrogen, Merck's.....lb	58	Acetate, white. lb	18
Carbonate, precipitated. lb	18	Acetate, white, powd.....lb	25
Carbonate, proto. lb	42	Acetate, purified, gran., 1-lb cart., M.C.W.lb	33
Carbonate, saccharated. lb	45	Bromide. oz	24
Chloride, 1-oz vials.....oz	8	Carbonate.....lb	12
Chloride, crystal. lb	34	Chloride, 1-oz vials.....oz	11
Chloride, sol. for tincture.....pt	35	Chromate, M. C. W.....lb	1 19
Citrate, soluble, 1-oz vials.....oz	11	Iodide, 1-oz vials, M. C. W.....oz	27
Citrate, soluble, M. C. W.....lb	80	Nitrate, 1-lb boxes, M. C. W.....lb	23
Citrate and Quinine, sol., M. C. W....lb	2 00	Nitrate, chemically pure, M. C. W.....lb	40
Citrate and Quinine with Strych., M.C.W.lb	2 55	Oxide, chemically pure, M. C. W.....lb	84
Citrate and Quinine with Strych., M.C.W.oz	26	Oxide, Merck's. lb	84
Citrate and Strychnine, 1-oz vials, M.C.W.oz	13	Subacetate, sol. lb	35
Ferrocyanide, 1-oz vials, M. C. W.....oz	10	Sulphate, pure, M. C. W.....lb	63
Ferrocyanide, M. C. W.....lb	65	Tannate, 1-oz vials, M. C. W.....oz	24
Filings.....lb	16	LEAVES, Aconite, German.....lb	30
Glycerino Phosphate. oz	32	Aconite, powd. lb	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aconite, pressed. oz	25
Iodide, 1-oz vials, M. C. W.....oz	36	Angelica, pressed. oz	25
Lactate, 1-oz vials, M. C. W.....oz	10	Bay, bulk. lb	15
Lactophosphate, 1-oz vials, M. C. W.....oz	19	Belladonna, English, bts.....lb	1 25
Nitrate, sol., U. S. P., M. C. W.....lb	34	Belladonna. lb	30
Oxide, black. lb	49	Belladonna, powd. lb	35
Oxide, brown, com'l, Merck's.....lb	22	Belladonna, pressed. oz	35

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Blessed Thistle, pressed.....oz	34	Powd. lb	75
Borage, pressed. oz	35	MADDER, Dutch. lb	15
Buchu, long. lb	55	MAGNESIUM, Benzoate, Mallinckrodt's...oz	24
Buchu, short. lb	40	Bromide, Mallinckrodt's. oz	25
Buchu, powd. lb	40	Calcined, Jennings', 1-lb cans.....lb	85
Buckbean, pressed oz	30	Calcined, K. & M.'s, 1-lb cans.....lb	75
Cocoa.....lb	45	Calcined, K. & M.'s, heavy.....lb	80
Conium. lb	30	Carbonate, Jennings', 2-oz.....lb	35
Conium, powd. lb	35	Carbonate, Jennings', 4-oz.....lb	35
Conium, pressed. oz	30	Carbonate, K. & M.'s, 1-oz.....lb	27
Coltsfoot, pressed. oz	25	Carbonate, K. & M.'s, 2-oz.....oz	23
Damiana.....lb	30	Carbonate, K. & M.'s, 4-oz.....lb	23
Digitalis, pressed. oz	35	Carbonate, K. & M.'s, small sq.....lb	60
Digitalis. lb	35	Carbonate, powd., in 65-lb bbls.....lb	13
Digitalis, powd. lb	35	Carbonate, powd., in 10-lb boxes.....lb	16
Eucalyptus. lb	20	Citrate, dry, English.....lb	65
Grindelia Robusta lb	25	Citrate, sol. doz	1 75
Grindelia Squarosa lb	40	Glycerinophosphate, Merck's.....oz	44
Hemlock, pressed. oz	30	Hypophosphite, 1-oz vials, M. C. W.....oz	20
Henna. lb	50	Hypophosphite, M. C. W.....lb	1 69
Henna, powd. lb	55	Hypophosphite, Merck's. oz	20
Henbane. lb	30	Iodide, M. C. W.....oz	47
Henbane, powd. lb	30	Sulphite, Mallinckrodt's lb	49
Henbane, pressed, oz.....lb	30	MANGANESE, Black, Oxide lb	8-10
Jaborandi. lb	35	Phosphate, M. C. W.....oz	18
Jaborandi, powd. lb	40	Carbonate, 1-oz vials, M. C. W.....oz	14
Laurel. lb	25	Chloride, 1-oz vials, M. C. W.....oz	14
Lovage, pressed, oz.....lb	30	Hypophosphite, 1-oz vials, M. C. W.....oz	20
Lungwort, pressed, oz.....lb	34	Hypophosphite, Merck's.....oz	20
Marjoram, sweet lb	36	Iodide, 1-oz vials, M. C. W.....oz	47
Rosemary, bulk. lb	20	Peptonized, Merck's. oz	29
Rosemary, pressed, oz. lb	25	Phosphate, M. C. W.....oz	18
Sage, oz. lb	25	Sulphate, 1-oz vials, M. C. W.....oz	9
Savin, pressed, oz.....lb	25	MANNA, Large flake lb	90
Senna, Alexandria, garbeled.....lb	30	Small flake. lb	60
Senna, Alexandria, powd. lb	30	MENTHOL. oz	35
Senna, Tinnevely, select.....lb	25	Cryst., 1-oz vials, Mallinckrodt's.....oz	35
Stramonium, powd. lb	30	Crystallized lb	3 75
Stramonium, pressed, oz.....lb	25	MERCURY, Chloride, Merck's.....lb	99
Thyme, pressed, oz.....lb	25	Ammoniate, d white precip. lb	1 25
Uva, Ursi. lb	20	Bisulphate. lb	75
Witch Hazel, pressed, oz.....lb	25	Cyanide.....oz	31
LEECHES. ea	10	Iodide, Green, Merck's oz	24
2 dozen lots.....ea	8	Iodide, green, 1-oz vials, M. C. W.....oz	24
LEPTANDRIN. oz	35	Iodide, Red, Merck's.....oz	26
LIME, Chloride, 35-lb cans.....lb	5	Iodide, red, 1-oz vials, M. C. W.....oz	26
Chloride, in bbls of 350 lbs.....lb	2 1/4	Iodide, Yellow, Merck's.....oz	24
Chloride, 1b cans doz	90	Iodide, yellow, 1-oz vials, M. C. W.....oz	24
Chloride, 1/2-lb cans.....doz	65	Nitrate, proto., 1-oz vials, M. C. W.....oz	27
Chloride, 1/4-lb cans.....doz	45	Nitrate, solution, 1-oz vials.....oz	27
LITHARGE. lb	12	Oxide, black, 1-oz vials.....oz	18
LITHIUM, Benzoate, 1-oz vials, M. C. W..oz	16	Oxide, red (red precip.).....lb	1 20
Bromide, Merck's. oz	24	Oxide, yellow, 1-oz vials.....oz	18
Bromide, 1-oz vials, M. C. W.....oz	24	Salicylate, M. C. W.....oz	27
Carbonate, Merck's. oz	20	Subsulphate, 1-oz vials. oz	15
Citrate, 1-oz vials, M. C. W.....oz	18	Subsulphate. lb	1 06
Citrate, cryst. or powd., Merck's.....oz	18	Sulphuret, black. lb	78
Iodide, Merck's. oz	38	With Chalk, 1-lb cartons.....lb	50
Salicylate, 1-oz vials, M. C. W.....oz	16	METHYL, SALICYLATE. lb	80
LITMUS. lb	50	METHYLENE, Blue Medicinal, Merck's...oz	45
Paper. doz	50	MILK SUGAR, Cryst.....lb	33
LODESTONE. lb	75	Powdered, bulk lb	23
LONDON PURPLE.....lb	20	M. C. W., 1-lb cartons lb	25
LOSOPHAN. oz	1 80	MORPHINE. Sulphate, 1/8s, 1-oz box, M.	
LUPULIN, German. lb	75	C. W. oz	3 90
LYCOPodium. lb	75	Sulphate, 1/8s, 2 1/2-oz box, M.C.W.....oz	3 85
LYCETOL. oz	4 25	Sulphate, 1-oz vials, M.C.W.....oz	3 65
LYSOL, 1-gal. jugs.....gal	4 00	Sulphate, 5-oz can, M.C.W.....oz	3 60
Pints. doz	8 00	In 10-oz lots, 10c oz less.	
MACE.....lb	75	Morphia, Acetate, 1/8s, M.C.W.....oz	4 05

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Morphia, Muriate, 1/8s, M.C.W.....oz	4 05	Cloves.....lb	1 75-2 00
Morphia, Valerianate, 1/8s, M.C.W.....oz	5 05	Cocanut lb	20-25
Other salts or Morphine subject to market price based on above.		Codliver, White, Norwegian.....gal	1 65
MOSS, Iceland. lb	18	Codliver, white, Norwegian, 5-gal cans..gal	1 50
Irish. lb	15	Codliver, white, Newfoundland.....gal	1 40
Irish, bleached. lb	20	Cognac, green. oz	2 50
MUSK, Chinese oz	40	Cologne. oz	50
Tonquin, grain dr	3 25	Copaiba.....lb	1 75
MUSTARD, Colman's, 4-oz cans.....doz	1 75	Coriander. oz	90
Colman's, 16-lb cans.....lb	50	Cotton Seed (salad), 5-gal can.....gal	1 05
Ground, Domestic, 5-lb cans.....lb	18	Cotton Seed (salad), 1-gal can.....gal	1 35
NAPHTHALIN, Balls. lb	5-7	Croton, 24-oz bots.....lb	1 50-1 65
Resublimated, Merck's. lb	27	Croton oz	20
Pure, 1-lb cartons, M. C. W.....lb	27	Cubebs lb	1 65-1 75
NAPHTHOL, Alpha. oz	30	Ergot, Keith's. oz	57
Beta. oz	10	Erigeron, Keith's. oz	38
NICKEL, Bromide, Merck's.....oz	32	Erigeron. lb	1 60
Bromide, 1-oz vials, M.C.W.....oz	29	Eucalyptus lb	85
Nickel and Ammonia Sulphate, M. C. W..lb	34	Fennel Seed lb	2 25
Sulphate, 1-oz vials, M. C. W.....oz	10	Fusil, purified. lb	80
Sulphate, Merck's. oz	10	Geranium, Rose, Chris.....oz	75
NOSOPHEN. doz	4 50	Hemlock. lb	65
NUTGALLS, Aleppo. lb	30	Hydrocarbon. gal	1 25
Aleppo, ground. lb	35	Jasmin, alcoholic. lb	3 00
Aleppo, powd. lb	35	Juniper Berries. lb	1 25-1 50
NUTMEGS, Macassar, large.....lb	60	Juniper, wood. lb	75
Penang, powd. lb	65	Lard. gal	1 10
NUTS, Areca lb	30	Laurel, expressed. lb	60
Areca, powd. lb	40	Lavender, Flowers lb	3 85
Kola. lb	35	Lavender, Garden lb	1 25
Kola, powd. lb	40	Lemon lb	2 75
NUX VOMICA. lb	25	Lemon, Sanderson's lb	3 00
Powdered or rasped.....lb	25	Lemon Grass. lb	4 00
OAKUM lb	15	Linseed, raw gal	70
Surgeon's. lb	20	Linseed, raw, case.....gal	63
OIL, Almonds, Bitter, true, Merck's.....lb	6 59	Linseed, boiled gal	70
Almonds, Bitter, Allen's.....oz	75	Linseed, boiled, case gal	65
Almonds, Sweet, Allen's.....lb	75	Mace, expressed. lb	1 75
Almonds, Sweet. lb	45-60	Male Fern, ethereal. oz	35
Amber, rectified. lb	60	Myrbane. lb	40
Anise. lb	2 00-2 25	Mullein.....oz	45
Bay Leaves, true oz	40	Musk, alcoholic. oz	1 00
Bay Leaves lb	4 25-4 50	Mustard, essential. oz	50
Benne.....gal	1 20	Mustard, expressed. gal	90
Bergamot lb	5 25-5 50	Neatsfoot, No. 1. gal	90
Birch Tar, rectified.....lb	1 25	Neroli, Petal. oz	3 00
Cade.....lb	50	Neroli, Bigarade. oz	5 75
Cajuput (21-oz bottles).....lb	1 10-1 35	Neroli, Petit Grain. oz	55
Calamus. oz	45	Nutmegs, essential. oz	35
Camphor, E. I. lb	45	Olive, pure, Malaga.....gal	1 25
Caraway, seed. lb	2 25	Olive, California. gal	3 00
Cardamon. oz	2 50	Olive, 1/2-gals. gal	3 25
Cassia lb	1 85-2 00	Olive, small doz	3 75
Castor, Baker's A. A.....gal	1 38-1 50	Olive, large. doz	7 50
Castor, Marsh's gal	1 34-1 45	Olive, imported. gal	2 00-2 10
Castor, 2-oz bottles.....doz	85	Orange, bitter. lb	4 50
Castor, 4-oz bottles.....doz	1 25	Orange, sweet lb	3 25
Castor, 6-oz bottles.....doz	1 75	Origanum, pure. lb	60
Castor, 8-oz bottles.....doz	2 25	Origanum, Chris. lb	1 85
Castor, 12-oz bottles.....doz	2 50	Palm. lb	25
Castor, 16-oz bottles.....doz	3 75	Patchouly.....oz	75
Cedar lb	60-100	Pennyroyal lb	4 00
Cedrat. oz	40	Pepper, black. oz	20
Celery. oz	1 40	Peppermint, Hotchkiss lb	3 25-3 50
Chamomile, German. oz	5 00	Peppermint, Wayne Co. lb	2 75-3 00
Chamomile, Roman. oz	1 75	Peppermint, Western lb	2 75-3 00
China, Nut. gal	1 00	Pimento. oz	30
Cinnamon, Ceylon. oz	90	Pinus, Sylvestris, German. lb	1 50
Citronella lb	80-90	Pinus, Pumilio. lb	4 50
		Pinus Pumilio. oz	40

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Rhodium	oz	35	PHENOLPHTHALEIN	oz	34	
Rose, Kizanlik	oz	6 25-6	50	PHOSPHORUS, 1-lb cans.....	lb	85
Rosemary, flowers.	lb	1 25-1	50	1/2-lb cans.....	lb	95
Rue.....	oz	40	1/4-lb cans.....	lb	1 05	
Sandalwood, English.	lb	5 50	Amorphous. .	lb	1 44	
Sandalwood, German.	lb	3 00-3	20	PIPERAZIN, Schering's 10-gm vials.....	bot	1 50
Sassafras. . .	lb	90-1	00	1/2-oz and 1-oz.....	oz	4 25
Savin. . .	lb	1 75	PIPERIN, 1-oz vials, Mallinckrodt's.....	oz	62	
Spearmint. .	lb	4 00	Merck's. .	oz	62	
Sperm.....	gal	1 00	PIPE CLAY.	lb	12	
Spike. . .	lb	35	PITCH, Burgundy	lb	15	
Spruce.....	lb	85	PITH, Sassafras.	lb	1 50	
Tansy. . .	lb	4 75	PLATINUM and Barium Cyanide, cr.,			
Tar.....	lb	25	Merck. .	gr	14	
Thyme, white.	lb	1 50	And Potassium Chloride, M's, 15-gr			
Turpentine, pure.	lb	55	vials	ea	70	
Wine, light.	oz	40	Chloride, Merck's	oz	16 25	
Wine, heavy.	oz	50	Chloride, solution, 10%, Merck's.....	oz	2 57	
Wintergreen	lb	4 00-4	25	PODOPHYLLIN	oz	30
Wormseed.....	lb	3 75-4	00	POPPY HEADS, German.	lb	30
Wormwood	lb	4 25-4	50	POTASH, Babbitt's, 4 doz in case.....	case	3 40
Ylang Ylang.	oz	4 50	Caustic, pure, by alcohol.....	lb	60	
OINTMENT, Basilicon.	lb	65	Caustic, white.	lb	37	
Citrine. .	lb	65	Caustic, 10-lb cans.....	lb	10-12	
Iodine.....	lb	1 25	Solution (liq. potass.)	lb	35	
Mercurial, 1/2 m.....	lb	65	POTASSIUM, Acetate, Merck's, 1-lb bot....	lb	42	
Mercurial, 1/3 m.....	lb	55	Acetate, M. C. W., 1-lb.....	lb	42	
Stramonium. .	lb	75	Antimonate, Merck's.	lb	1 09	
Tar.....	lb	50	Arsenate, 1-oz vials, Merck's.....	oz	14	
Zinc, benzoated.	lb	65	Bicarbonate, cryst., M. C. W.....	lb	20	
Zinc, oxide.	lb	65	Bicarbonate, cryst., H. P., Merck's.....	lb	34	
OPIUM, powd., Merck's	lb	9 00	Bicarbonate, granulated, M. C. W.....	lb	20	
ORTHOFORM. .	oz	1 40	Bicarbonate, powd.	lb	20	
PANCREATIN, Merck's, pure.....	oz	44	Bichromate	lb	18-20	
Pure, scales, P. D. & Co.....	oz	50	M. C. W.	lb	34	
PAPAIN, Boehringer.	oz	75	Bromide, crys. or gran., 5-lb bxs, M.C.W..	lb	32	
Merck's. .	oz	60	Carbonate, purified, M. C. W.....	lb	41	
PARAFFINE, refined.	lb	12-15	Carbonate, bulk.	lb	15	
PARALDEHYDE, Merck's.	lb	99	Caustic, pure, Merck's.....	lb	37	
Merck's. .	oz	14	Caustic, C. P., Merck's.....	lb	2 59	
PARIS GREEN.	lb	38-42	Chlorate, cryst.	lb	16-18	
PASTILLES, Fumigating, black.....	lb	50	Chlorate, gran., pure, M. C. W.....	lb	22	
Fumigating, red	lb	50	Chlorate, powd.	lb	16-18	
PEARL ASH.	lb	8-10	Chromate, yellow, neutral.	lb	40	
PEEL, Orange, sweet, ground.....	lb	25	Chromate, yellow, H. P., Merck's.....	lb	69	
Orange, bitter, coarse.....	lb	20	Citrate, M. C. W.....	lb	72	
Orange, bitter, powdered.....	lb	25	Citrate, H. P., Merck's.....	lb	1 19	
Orange, sweet, quarters.....	lb	20	Cyanide, fused, M. C. W.....	lb	45	
PELLETIERINE, Sulphate, Merck's, 15-gr vial	1 75		Cyanide, C. P. 99%.....	lb	52	
Tannate, Merck's, 15-gr vial.....	35		Cyanide, Miner's, 10-lb tin.....	lb	28	
PEPPER, black, Singapore, sifted.....	lb	30	Ferricyanide, chem. pure, M. C. W.....	lb	1 04	
Black, powd.	lb	30	Ferrocyanide, pure, Merck's.....	lb	59	
White. .	lb	40	Glycerinophosphate.. .	oz	26	
White, powd.	lb	40	Hypophosphite, purified, Merck's.....	lb	1 14	
PEPSIN, pure, U. S. P.....	lb	4 50	Hypophosphite, M. C. W.....	lb	99	
Powd. or scales.	lb	4 50	Iodide, M. C. W., 1-lb boxes.....	lb	2 65	
Powd., Ph. G. III.....	oz	25	Nitrate, cryst.	lb	10-12	
PEPTONE, Merck's, dry, from meat.....	oz	34	Nitrate, granulated.	lb	10-12	
PETROLATUM, 1-lb cans.....	doz	2 00	Nitrate, chemically pure, M. C. W.....	lb	30	
50-lb pails.	lb	7	Oxalate, neutral.	lb	28	
25-lb pails.	lb	7 1/2	Permanganate, cryst., 1-oz vials.....	oz	8	
10-lb cans.	lb	9	Permanganate, large cryst., pure, M.C.W..	lb	27	
5-lb cans.	lb	10	Permanganate, small cryst.....	lb	25	
Snow White, 50-lb pails.....	lb	15 1/2	Phosphate, 1-oz vials.....	oz	11	
Snow White, 25-lb pails.....	lb	16 1/2	Phosphate	lb	64	
Snow White, 10-lb cans.....	lb	18	Prussiate, red.	lb	65	
Snow White, 5-lb cans.....	lb	25	Prussiate, yellow.	lb	35	
Snow White, 1-lb cans.....	lb	30	Sulphate, cryst. or powd.....	lb	16	
PHENACETINE.	oz	33	Sulphate, chemically pure.....	lb	60	
PHENILINE.	oz	1 00	Sulphide (Liver Sulphur).....	lb	24	

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Sulphurated, Merck's. lb	25	Burdock, powd.....lb	25
Tartrate (soluble Tartar).....lb	59	Calamus, peeled lb	30
POWDER, Antimonial. lb	85	Calamus, white, peeled and split.....lb	50
Aromatic. lb	1 25	Calamus, powd.....lb	35
Carbolic Acid, disinfecting.....doz	1 50	Cohosh, black, pressed. lb	25
Chalk, aromatic. lb	75	Cohosh, black, powd. lb	25
Chalk, compound. lb	75	Cohosh, blue, pressed, lb.....lb	25
Chalk and Opium. lb	2 50	Cohosh, blue, powd.....lb	25
Composition, 2-oz papers.....lb	35	Colchicum lb	28
Dover's lb	1 50	Colchicum, powd lb	35
Insect, Buhach, 6-lb cans.....lb	60	Columbo, foreign. lb	25
Insect, Dalmatian. lb	25-30	Columbo, powd.....lb	25
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Comfrey, pressed, lb. lb	25
Jalap, comp. lb	1 00	Comfrey, powd.....lb	25
Licorice, comp. lb	25	Cranesbill, pressed, lb.....lb	25
Licorice, comp., 2-oz packages.....doz	75	Culvers, pressed, lb.....lb	25
Rhubarb, comp. lb	1 50	Culvers, powd lb	30
Tooth. lb	50	Dandelion, Am., pressed, lb.....lb	35
PROPYLAMIN, 10% solution, Merck's....oz	55	Dandelion, powd. lb	38
Hydrochlorate, 1/8-oz vials. oz	3 50	Dwarf Elder, pressed, lb.....lb	35
PROTARGOL. oz	1 25	Elecampane, pressed, lb. lb	25
PULVIS ANTIMONIALIS. lb	85	Elecampane, powd lb	25
PYOKTANIN, Blue or Yellow, Merck's....oz	1 50	Gelsemium, pressed, lb.....lb	25
PYRIDINE, Merck's. oz	32	Gelsemium, powd lb	25
QUICKSILVER. lb	80	Gentian lb	16
QUINACETINE. oz	85	Gentian, ground lb	20
QUINALGIN. oz	1 25	Gentian, powd lb	20
QUININE, Alkaloid, 1-oz vials, M.C.W....oz	58	Ginger, African. lb	17
Bisulphate, 1-oz vials, M.C.W.....oz	28	Ginger, African, powd lb	18
Bisulphate, 5-oz cans, M.C.W.....oz	26	Ginger, Jamaica, bleached. lb	27
Citrate, 1-oz vials, M.C.W.....oz	57	Ginger, Jamaica, bleached, powd.....lb	30
Muriate, 1-oz vials, M.C.W.....oz	51	Ginseng lb	8 50-10 00
Phosphate, 1-oz vials, M.C.W.....oz	55	Golden Seal lb	1 75
Salicylate, 1-oz vials, M.C.W.....oz	54	Golden Seal, pressed lb	1 80
Sulphate, 1-oz cans, M.C.W.....oz	28	Golden Seal, powd lb	1 80
Sulphate, 5-oz cans, M.C.W.....oz	25	Hellebore, black, pressed.....lb	25
Sulphate, 25-oz cans, M.C.W.....oz	21	Hellebore, black, powd.....lb	25
Sulphate, 50-oz cans, M.C.W.....oz	20	Hellebore, white, pressed, lb.....lb	25
Sulphate, 100-oz cans, M.C.W.....oz	18	Hellebore, white, powd.....lb	25
Tannate, Neutral, Merck's. oz	38	Indian Hemp, black, pressed, lb.....lb	35
Tannate, 1-oz vials, M.C.W.....oz	37	Indian Hemp, black, powd lb	40
Valerianate, 1-oz vials, M.C.W.....oz	57	Indian Hemp, white, pressed lb	25
QUINOLINE, Merck's oz	45	Indian Hemp, white, powd lb	30
Tartrate, Merck's oz	45	Ipecac, Rio, powd.....lb	2 50
RED SAUNDERS. lb	12	Jalap lb	30
RESIN, Jalap, Merck's.....oz	54	Jalap, powd lb	35
Copaiba. lb	1 50	Kava Kava lb	50
Scamony oz	40	Ladies' Slipper, pressed, lb.....lb	75
RESORCIN, cryst., Merck's oz	18	Licorice, select lb	16
Resublimed, H. P., Merck's.....oz	66	Licorice, pipestem lb	18
M. C. W.....lb	1 50	Licorice, cut, Russian lb	20
M. C. W.....oz	19	Licorice, powd lb	16-20
ROOT, Abscess, pressed, lb.....lb	40	Mandrake, pressed, lb.....lb	30
Aconite, powd.....lb	35	Mandrake, powd lb	35
Aconite, pressed.....lb	32	Marshmallow, cut lb	34
Alkanet lb	25	Marshmallow, powd lb	35
Alkanet, powd.....lb	30	Musk lb	30
Angelica, pressed lb	20	Orris, Florentine lb	25
Angelica, powd lb	25	Orris, Florentine, Fingers.....lb	1 25
Arnica, pressed lb	35	Orris, Florentine, granulated.....lb	35
Belladonna, pressed, lb. lb	25	Orris, Florentine, powd.....lb	30
Belladonna, powd.....lb	28	Pareira Brava, pressed lb	34
Berberis Aquif, pressed, lb.....lb	45	Pink. lb	85
Beth, pressed, lb.....lb	30	Pink, powd. lb	90
Beth, powd lb	35	Pleurisy, pressed lb	25
Blackberry, pressed, lb.....lb	30	Poke, pressed lb	25
Blood, pressed, lb.....lb	30	Poke, powd lb	20
Blood, powd.....lb	35	Pond Lily, white, pressed lb	40
Blue Flag, pressed lb	25	Pond Lily, white, powd lb	40
Burdock, pressed, lb. lb	25	Pond Lily, yellow, pressed lb	30

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Pond Lily, yellow, powd	lb	35	Salol, Merck's	oz	15
Rhatany	lb	30	SALOPHEN	oz	1 00
Rhatany, powd	lb	35	SANTONIN, bulk, M.C.W.	lb	14 09
Rhubarb, East India	lb	75	Cryst., Merck's	oz	99
Rhubarb, East India, powd	lb	75	1-oz vials, M.C.W.	oz	99
Rhubarb, cut in cubes, No. 1.....	lb	1 25	SEED, Angelica	lb	25
Rhubarb, cut in cubes, No. 2.....	lb	1 00	Anise, Italian	lb	20
Rhubarb, cut in fingers, No. 1.....	lb	1 50	Anise, Italian, powd.....	lb	25
Rhubarb, cut in fingers, No. 2.....	lb	1 25	Anise, Star	lb	45
Salep, powd	lb	1 00	Bird, mixed, bulk.	lb	8
Sarsaparilla, American	lb	30	Bird, mixed, boxes.	doz	1 00
Sarsaparilla, American, powd	lb	30	Bird, mixed, cases, 30 pks.....		2 25
Sarsaparilla, Honduras	lb	70	Burdock	lb	25
Sarsaparilla, Honduras, ground	lb	75	Canary	lb	9-10
Sarsaparilla, Honduras, powd	lb	75	Caraway, Dutch.	lb	15
Sarsaparilla, Mexican	lb	25	Caraway, powd.	lb	17
Sarsaparilla, Mexican, ground	lb	25	Cardamon, Malabar.	lb	1 00
Sarsaparilla, Mexican, powd	lb	30	Cardamon, Mangalor, bleached.....	lb	1 25
Senega, pressed	lb	80	Cardamon, powd.	lb	1 00
Senega, powd.	lb	85	Celery	lb	25
Silkweed, pressed	lb	28	Colchicum. . .	lb	50
Skunk Cabbage, pressed	lb	30	Colchicum, powd.	lb	55
Skunk Cabbage, powd	lb	35	Conium	lb	25
Snake, Canada, pressed.....	lb	65	Coriander, German.	lb	14
Snake, Virginia	lb	65	Coriander, German, powd	lb	20
Snake, Virginia, powd	lb	70	Cumin	lb	18-20
Spikenard, pressed	lb	72	Dill	lb	25
Spikenard, powd	lb	30	Fennel. . .	lb	18
Squills, white, sliced.	lb	20	Fennel, powd.....	lb	20
Squills, powd	lb	60	Flax, recleaned.	lb	5½-6
Stillingia, pressed	lb	25	Flax, ground.	lb	5½-6
Stillingia, powd	lb	30	Flax Oil Cake	lb	2½-3½
Stone, pressed	lb	25	Foenugreek, powd	lb	12
Sweet Flag, pressed	lb	25	Hemp, recleaned	lb	6½-8
Turkey Corn	lb	28	Henbane	lb	35
Unicorn, true, pressed	lb	35	Larkspur. . .	lb	55
Unicorn, true, powd	lb	40	Lobelia.....	lb	60
Unicorn, false, pressed.....	lb	40	Lobelia, powd.	lb	65
Unicorn, false, powd	lb	45	Millet, American.	lb	6-8
Valerian, English, bulk.....	lb	35	Mustard, black, Trieste	lb	10-12
Valerian, English, powd	lb	35	Mustard, white	lb	10-10
Valerian, German	lb	30	Poppy Blue	lb	16
Valerian, German, powd	lb	30	Pumpkin	lb	22
Yellow Dock	lb	25	Rape, California.	lb	6-8
Yellow Dock, ground	lb	30	Sabadilla	lb	35
Yellow Dock, powd	lb	30	Sabadilla, powd	lb	30-35
Zedoary	lb	30	Stavesacre	lb	40
ROSIN, No. 1.	lb	6-8	Stavesacre, powd	lb	45
Barrel. . .		7 75	Stramonium	lb	25
ROUGE, Jewelers'	lb	50	Stramonium, powd	lb	30
SACCHARIN	tin	35	Sunflower	lb	15
SAFFRON, American	lb	65	Watermelon	lb	25
Spanish. . .	oz	80	Worm, American	lb	25
Spanish.....	lb	10 00	Worm, American, powd	lb	25
SAL, Acetosella	lb	45	Worm, Levant	lb	35
Epsom	lb	2½-5	Worm, Levant, powd	lb	40
Glauber	lb	1½-4	SEIDLITZ MIXTURE	lb	28-30
Nitre	lb	10-12	SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19
Nitre, granulated.	lb	10-12	Chloride, 1-oz vials, M. C. W.....	oz	84
Nitre, powd.	lb	10-12	Cyanide, 1-oz vials, M. C. W.....	oz	1 04
Prunelle	lb	45	Iodide, 1-oz vials, M. C. W.....	oz	1 04
Rochelle. . .	lb	28-30	Lactate, Merck's	oz	1 04
Soda. . .	lb	3-5	Nitrate, cryst., 1-oz vials, M.C.W.....	oz	58
Tartar. . .	lb	15	Nitrate, cones, 1-oz vials.....	oz	70
SALICINE, Merck's.....	oz	37	Nitrate, fused (Lunar caustic), 1-oz vials,		
Salicine	lb	4 60	M. C. W.	oz	60
SALIPYRINE	oz	1 00	Nitrate, fused, No. 2, 1-oz vials.....	lb	47
SALOL, Mallinckrodt's.....	oz	15	SNUFF, Garrett's, 1-oz tins.....	doz	60
Salol, Mallinckrodt's, cartons	lb	1 17	Garrett's, 1¾-oz tins.	doz	1 10
Salol, Merck's	lb	1 25	Garrett's, 3¼-oz tins.....	doz	1 75

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Garrett's, 6-oz bots.....doz	3 25	Tin, Chloride lb	35
Maccaboy, 3 1/3-oz bots.....doz	2 00	SOMATOSE, Biscuit, 8-oz boxes.....doz	4 00
Rappee lb	65	Somatose, Ferro, 2-oz tins.....doz	10 50
Rappee, 3 1/3-oz bots.....doz	2 00	Somatose, 2-oz tins.....doz	8 25
Scotch, Lorillard's lb	65	Somatose, 1 1/4-lb tins.....lb	5 25
Scotch, Lorillard's doz	2 00	Somatose, 1 1/2-lb tins.....lb	5 00
Scotch, Garrett's Bladders.....lb	55	SOZOIODOL, Mercury, Merck's.....oz	1 15
SOAP, Castile, Conti's, white, box 14c less..lb	17	Potassium, Merck's oz	75
Castile, mottled, box 8 1/2c; less.....lb	12	Sodium, Merck's oz	80
Castile, Kirk's (San Bernaldo) white, 18 bars per box	3 00	Zinc, Merck's oz	1 10
Castile, powdered, white.....lb	35	SPARTEINE, Sulphate, Merck's, 1/8s.....oz	83
Green, German lb	25	Sulphate, 15-gr. vials.....ea	12
Opodeldoc lb	65	SPERMACETI, in cakes.....lb	42-45
SODA, Ash. lb	2 1/2-5	SPIRIT, Ammonia lb	75
Caustic, Sticks, Merck's.....lb	34	Ammonia, aromatic. lb	85
Caustic, com., drums.....lb	3-4	Camphor lb	75
Caustic, com., 10-lb drums.....lb	6 1/2-7 1/2	Chloroform, U. S. P.....lb	75
Caustic, purified, fused.....lb	40	Lavender lb	60
Sal (carbonate) bbls., 1 3/4c.....lb	3	Nitre, U. S. P., 1-lb bots.....lb	65
Soda Silicate, dry lb	35	Nitre, U. S. P., 4-lb bots.....lb	58
Soda Silicate, liquid.....lb	15-25	Nutmeg. lb	75
SODIUM, 1-oz vials, M. C. W.....oz	25	Pimento. lb	65
Acetate, M. C. W., carton.....lb	17	Rosemary. lb	65
Arseniate, 1-oz vials.....oz	9	STEARIN lb	20
Arsenite, 1-oz vials, M. C. W.....oz	10	STONE, Pumice, select.....lb	10
Benzoate, 1-oz vials, M. C. W.....oz	11	Pumice, select, powd.....lb	8-10
Benzoate, 1-lb bots. lb	56	Rotten lb	12-15
Benzoate, true fr. Gum Benzoin, Merck's.oz	29	Rotten, powd lb	10
Bicarbonate, C. P., powd., M. C. W.....lb	15	Soap, cut lb	18
Bicarbonate, kegs, 3c.....lb	4-5	Soap, powd lb	8
Bisulphite, dry, pure, Merck's.....lb	27	STRONTIUM, Bromide, cryst., M. C. W..oz	11
Borate, neutral, Merck's.....oz	19	Carbonate, M. C. W.....lb	27
Bromide, M. C. W. lb	35	Hypophosphite, M. C. W.....oz	29
Cacodylate, Merck's oz	84	Iodide, 1-oz vial, M. C. W.....oz	30
Carbonate, pure cryst., 1-lb car., M. C. W.lb	11	Lactate, Merck's oz	16
Carbonate, pure gran., 1-lb car., M. C. W.lb	11	Muriate, M. C. W.....lb	32
Carbonate, dried, C. P., 1-lb car.....lb	27	Nitrate, pure, dried, Merck's.....lb	59
Cinnamate oz	59	Salicylate, M. C. W.....lb	83
Citrate, M. C. W.....lb	74	Sulphate, M. C. W.....lb	79
Glycerophosphate, 75%, Merck's.....oz	24	STYPTICIN, Merck's oz	6 50
Glycocholate. oz	1 04	STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.oz	1 70
Hypophosphite, purified, Merck's.....lb	1 14	Arsenate, 1/8-oz vials, M. C. W.....oz	1 70
Hypophosphite, 1-oz vials, Merck's.....oz	15	Bromide, 1/8-oz vials, M. C. W.....oz	1 70
Hyposulphite, 112-lb kegs. lb	3	Citrate, 1/8-oz vials, M. C. W.....oz	1 70
Hyposulphite, less lb	5	Crystals, 1/8-oz vials, M. C. W.....oz	1 45
Iodide, 1-oz vials, M. C. W.....oz	31	Hypophosphite, 1/8-oz vials, M. C. W.....oz	1 95
Iodide, H. P., Merck's.....oz	31	Muriate, 1/8-oz vials, M. C. W.....oz	1 70
Iodide, M. C. W.....lb	3 53	Nitrate, 1/8-oz vials, M. C. W.....oz	1 70
Nitrate, cryst., C. P.....lb	29	Phosphate, 1/8-oz vials, M. C. W.....oz	1 80
Nitrate, gran., pure, 1-lb cartons.....lb	18	Sulphate, 1/8-oz vials, M. C. W.....oz	1 40
Phosphate, pure, recryst., bulk.....lb	12	Sulphate, 1-oz vials, M. C. W.....oz	1 20
Phosphate, gran., pure, M. C. W.....lb	13	Crystals, 1-oz vials.....oz	90
Phosphate, dried, powd.....lb	24	Crystals, in bulk.....oz	85
Salicylate, Merck's lb	49	Powdered, in bulk.....oz	80
Santoninate, Merck's oz	89	Powdered, 1/8-oz vials.....oz	1 05
Succinate.....oz	49	Powdered, 1-oz vials.....oz	85
Sulphate, Glauber Salts.....lb	3-5	STYRAX, liquid, ...lb	60
Sulphate, Glauber Salts, bbl.....lb	1 1/2	SUGAR, burnt lb	25
Sulphate, dried lb	18-20	Grape. lb	25
Sulphite, crystals lb	10	Milk, crystals lb	30
Sulphite, granulated lb	18	Milk, powd., bulk.....lb	23
Sulphite, dry, Merck's.....lb	22	Milk, powd., M.C.W., 1-lb cartons.....lb	25
Tartrate, Merck's lb	64	SULFONAL, 1-oz vials.....oz	1 35
SOLUTIONS, Donovan's lb	34	SULPHON-ETHYL-METHANE oz	75
Fowler's lb	30	SULPHON-METHANE oz	60
Goulard's lb	35	SULPHUR, California, ground, 110-lb bags.lb	2
Nitrate, Iron lb	50	Flowers lb	5
Mercury, Nitrate oz	20	Flowers, in bags.....lb	2 3/4-3
Monse's lb	50	Iodide, Merck's oz	38

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Lac., precip.....lb	18	Benzoin	lb	75
Roll, bbl.....lb	2 3/4-5	Benzoin, comp.....lb	75	
Sicily, ground.....lb	5	Blood Root	lb	65
Strips	15	Buchu	lb	65
Washed	15	Cantharides	lb	75
SUMAC.	10	Capsicum	lb	65
SYRUP, Ginger, U. S. P.....lb	65	Cardamom	lb	75
Hydriodic Acid	70	Cardamom, comp.....lb	75	
Iron Iodide	65	Catechu, comp.....lb	75	
Ipecac	60	Cinchona, comp.....lb	75	
Lactucarium	1 00	Cinnamon	lb	65
Orange Peel	65	Colchicum Root	lb	75
Rhubarb	60	Colchicum Seed	lb	75
Rhubarb, Aromatic	65	Columbo	lb	60
Rhubarb and Potash.....lb	65	Conium	lb	65
Sarsaparilla	65	Cubebs	lb	65
Sarsaparilla, comp.....lb	65	Digitalis	lb	65
Senna	65	Ergot	lb	75
Senega, U. S. P.....lb	65	Ergot, ethereal	lb	80
Simple	35	Galls	lb	60
Squill	60	Gelsemium	lb	75
Squill, comp.....lb	60	Gentian	lb	60
Stillingia, comp.....lb	60	Gentian, comp.....lb	65	
Tolu	60	Ginger	lb	65
Wild Cherry	60	Guaiaac	lb	75
Yerba Santa comp.....lb	65	Guaiaac, ammoniated	lb	75
TALCUM, powdered	6-8	Guaiaac, Dewees'	lb	75
Purified	20-25	Hyoscyamus	lb	65
TAMARINDS, pound bottles.....lb	25	Iodine.	lb	1 40
Keg.	4 75	Iodine, colorless.	lb	1 40
Pulp	50	Iodine, comp.	lb	1 40
TANNALBIN.	85	Iodine, Churchill's.	lb	1 75
TANNIN, 1-lb cartons, incl.....lb	85-90	Ipecac	lb	80
1-oz cartons, incl.....oz	12	Iron Acetate	lb	65
TANNIGEN	75	Iron Chloride	lb	50
TANNOFORM, Merck's	22	Iron Citro-Chloride	lb	65
TANNOPINE	75	Jalap	lb	65
Veterinary	25	Kino	lb	75
TAR, Barbadoes	25	Lobelia	lb	60
Coal	25	Lobelia, ethereal	lb	65
Pine, bulk	40	Myrrh	lb	75
Pine, 1/2-lb cans.....doz	75	Myrrh and Capsicum.....lb	75	
Pine, 1-lb cans.....doz	90	Nux Vomica	lb	65
Pine, 2-lb cans.....doz	1 50	Opium	lb	1 25
Pine, gal cans.....doz	6 00	Opium, camphorated	lb	60
TARTAR EMETIC, M. C. W.....lb	54	Opium, deodorized	lb	1 30
TEREBENE, 1-lb bottles.	79	Orange Peel	lb	65
Merck's	14	Quassia	lb	60
TERPIN HYDRATE, cryst., Merck's.....oz	10	Rhatany	lb	60
Pounds, Merck's	60	Red Saunders	lb	65
TERPINOL, Liquid, Merck's.....oz	47	Rhubarb	lb	65
THEOBROMINE, Alkaloid, Merck's.....oz	90	Rhubarb, Aqueous	lb	60
And Sodium Salicylate, Merck's.....oz	60	Rhubarb, Aromatic	lb	70
THIOL, dry	1 00	Rhubarb, comp.....lb	65	
Liquid.	40	Rhubarb, Sweet	lb	65
THYMOL, 1-oz vials, Merck's.....oz	25	Rhubarb and Aloes.....lb	65	
Pounds	2 90	Rhubarb and Senna.....lb	65	
THYROIDIN, Merck's	1 30	Senna	lb	65
TIN, Chloride, Merck's.....lb	53	Senna, comp.....lb	65	
Metallic, feathered	1 00	Serpentaria	lb	65
Muriate, solution	35	Stramonium Leaves	lb	65
Oxide, white, pure, Merck's.....lb	99	Stramonium Seed	lb	65
TINCTURE, Aconite Leaves.....lb	65	Strophanthus	lb	1 25
Aconite Root	75	Tolu	lb	75
Aconite Root, Fleming's.....lb	90	Valerian	lb	65
Aloes	65	Valerian, ammoniated	lb	85
Aloes and Myrrh.....lb	65	Veratrum Viride	lb	65
Arnica	65	Warburg's	lb	1 75
Asafœtida	65	TRIKRESOL, S. & G.....lb	60	
Belladonna	65	TRIMETHYLAMINE, Merck's	oz	55

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TRIONAL	oz	1 50	Quassia, powdered.	lb	18
TRIPOLI, bulk	lb	8-12	Red Sanders, ground.	lb	12
TURPENTINE	gal	95	Red, cut.	lb	10
In case	gal	90	XANTHOXYLIN, Keith's	oz	1 13
Chian	oz	45	XYLOL	lb	70
Venice	lb	35	ZINC, Acetate, Merck's.....	lb	43
URANIUM, Acetate, 1-oz vials, Merck's....	oz	59	Acetate, 1-lb bottles, M. C. W.....	lb	43
Chloride, 1-oz vials, Merck's.....	oz	47	Benzoate, Merck's	oz	24
Nitrate, 1-oz vials, Merck's.....	oz	45	Benzoate, 1-oz vials, M. C. W.....	oz	24
Sulphate, 1-oz vials, Merck's.....	oz	47	Carbolate, 1-oz vials, M. C. W.....	oz	24
UROTROPIN	oz	60	Carbonate, precipitate, 1-lb cartons.....	lb	25
Tablets, 20 in box.....	box	25	Chloride, fused, 1-oz vials, Merck's.....	oz	13
UNGUENTUM CREDE, ½-oz jars.....	oz	90	Chloride, granulated, Merck's.....	lb	33
URETHANE, Merck's	oz	54	Cyanide, 1-oz vials, M. C. W.....	oz	21
VANILLIN, 1-oz vials.....	oz	75	Hypophosphite, 1-oz vials, Merck's.....	oz	29
VERATRINE, pure, ⅛-oz vials.....	oz	2 40	Iodide, 1-oz vials, M. C. W.....	oz	37
VERONAL, powd.....	oz	1 60	Metallic, pure, feathered.....	lb	27
Tablets, 10c.	ea	30	Oxide, English, Hubbuck's.	lb	50
Tablets, 100s	ea	2 25	Oxide, pure, M.C.W.	lb	30
VERDIGRIS	lb	40	Permanganate, Merck's	oz	52
Powdered	lb	45	Phosphate, M. C. W.....	oz	10
WATER, Cherry, Laurel.....	pt	50	Phosphide, Merck's	oz	23
Chlorine	lb	40	Sulphate, cryst.....	lb	8-10
Distilled. . .	gal	8	Sulphate, cryst., chemically pure.....	lb	18
Elder Flower	lb	50	Sulphide, 1-oz vials, M. C. W.....	oz	16
Orange Flower, triple.....	lb	35	Sulphocarbolate, M. C. W.....	lb	59
Orange Flower	gal	2 00	Sulphocarbolate, 1-oz vials, M. C. W....	oz	11
Orange Flower, Chiris, small.....	doz	2 00	Sulphate, H. P., Merck's.....	lb	15
Orange Flower, Chiris, large.....	doz	3 75	Sulphate, dried, H. P., Merck's.....	lb	25
Rose, triple	lb	40	Sulphocarbolate, Merck's	oz	11
Rose	gal	2 00			
Rose, Chiris, 6¾-gal coppers.....	gal	1 75			
Rose, Chiris, small.....	doz	2 00			
Rose, Chiris, large.....	doz	4 00			
WAX, Bayberry	lb	45			
Bees, yellow, refined.	lb	37-40			
Bees, yellow, oz.	lb	45			
Bees, white, extra.	lb	60			
Bees, white, No. 1.	lb	55			
Bowdlear's 1-lb cartons	doz	4 20			
Fruit, can, red.....	lb	8			
Fruit, can, white	lb	8			
Japan	lb	18-20			
WAX, FLOOR	lb	25-33			
Johnson's, 1-lb cartons.....	doz	4 00			
Johnson's, ½-lb cartons.....	doz	2 25			
Johnson's, ¼-lb cartons.....	doz	1 40			
WHITING, Gilders'	lb	3			
Spanish	lb	2½			
WINE, Antimony	lb	65			
Aromatic	lb	65			
Colchicum Root	lb	75			
Colchicum Seed	lb	65			
Ergot	lb	1 25			
Ipecac	lb	1 25			
WOOD, Brazil, ground.....	lb	10			
Camwood	lb	10			
Fustic, cut	lb	3½-5			
Fustic, ground	lb	6			
Guaiac, rasped	lb	10			
Hypernic. . .	lb	8-10			
Logwood, chip. .	lb	8-10			
Logwood, ground.	lb	8-10			
Nic. . .	lb	8-10			
Quassia, chip.	lb	15			
Quassia, ground.	lb	18			

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65
Apollinaris, 50 qt bots in case.....	8 50	2 25
Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Bartlett, 50 qt. bots. in case.....	8 00	2 25
Bethesda, 50 qt. bots. in case.....	7 50	2 25
Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Bythinia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50
Franz Joseph, 50 bots. in case.....	11 00	3 00
Garrod Spa Lithia, pints.....	6 00	2 00
Garrod Spa, Lithia, ½-gal.....	....	5 00
Hathorn, 48 pt. bots. in case.....	8 00	2 50
Hunyadi Janos (in case), 50-qt. bots..	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, ½ gallons.....	9 50	6 50
Londonderry Lithia, 100 pints.....	13 50	1 75
Poland, qts., 50 to case.....	9 00	2 50
Rackoczy Kissengen .....	....	5 00
Red Raven Splits.	5 00	1 35
Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Veronica .....	....	5 50
Vichy Water Celestine.....	10 00	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.....	12 00	4 50
White Rock Splits.	9 90	1 20
White Rock, pints	11 50	1 50
White Rock, quarts.	8 85	2 25

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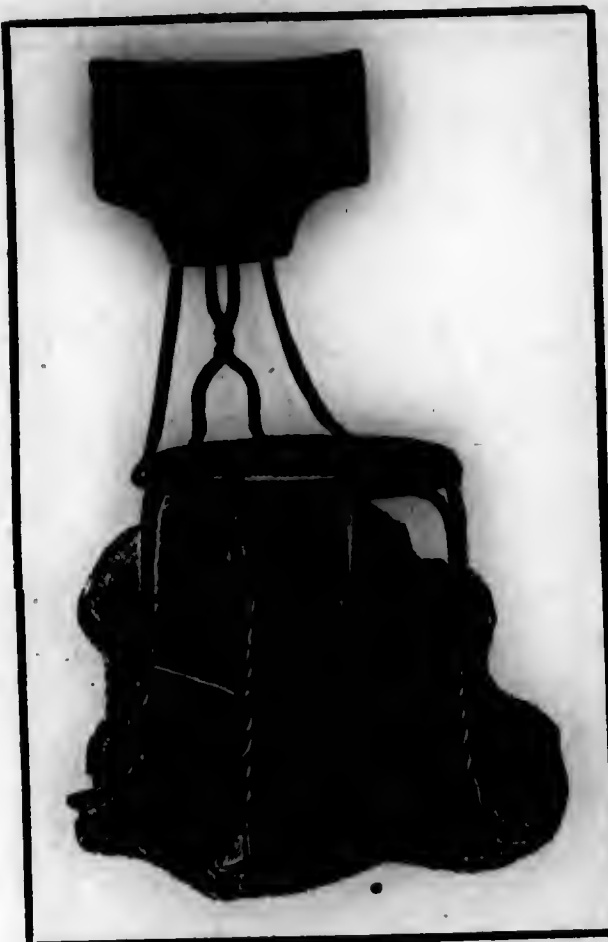
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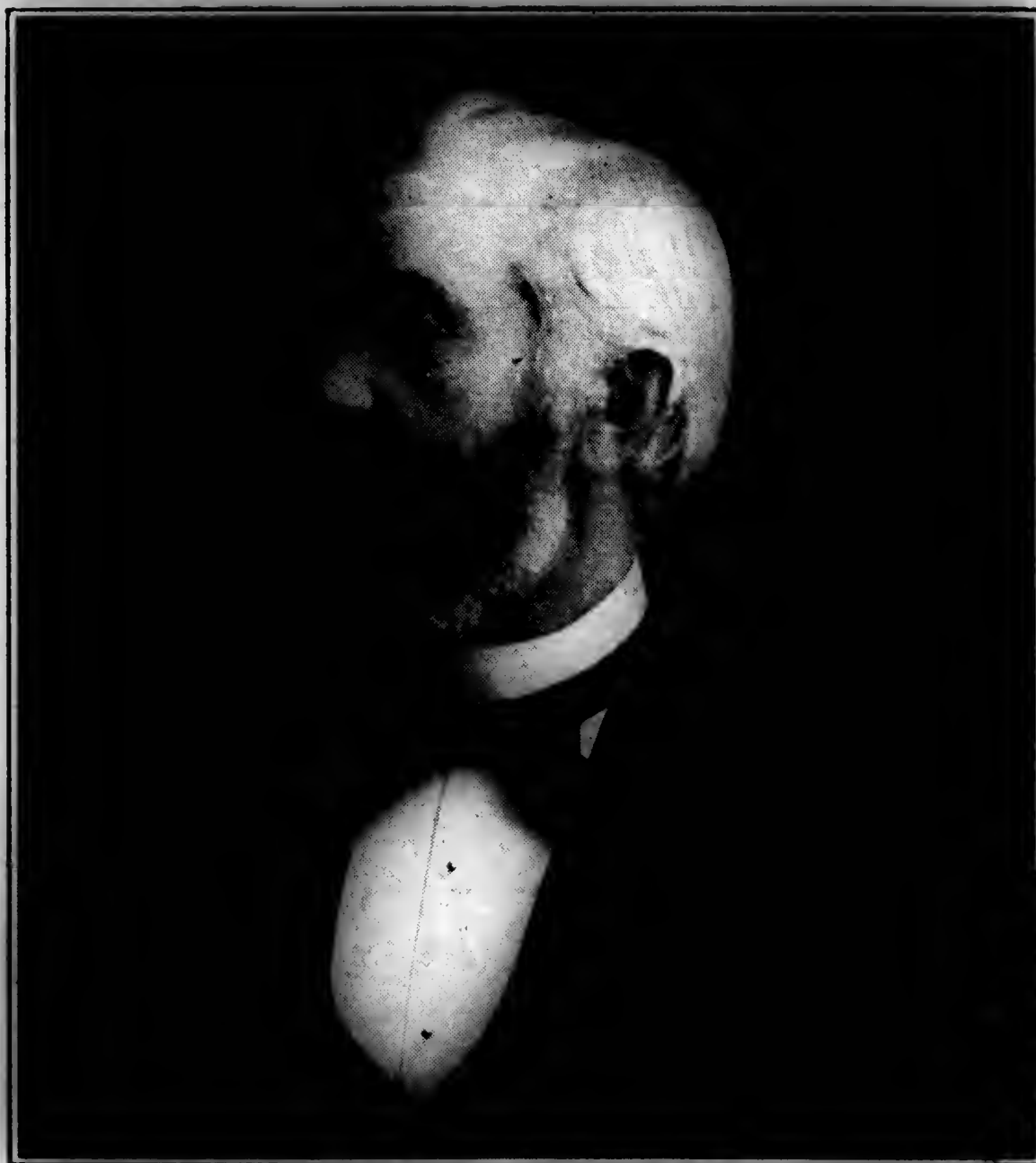
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VOL. 1

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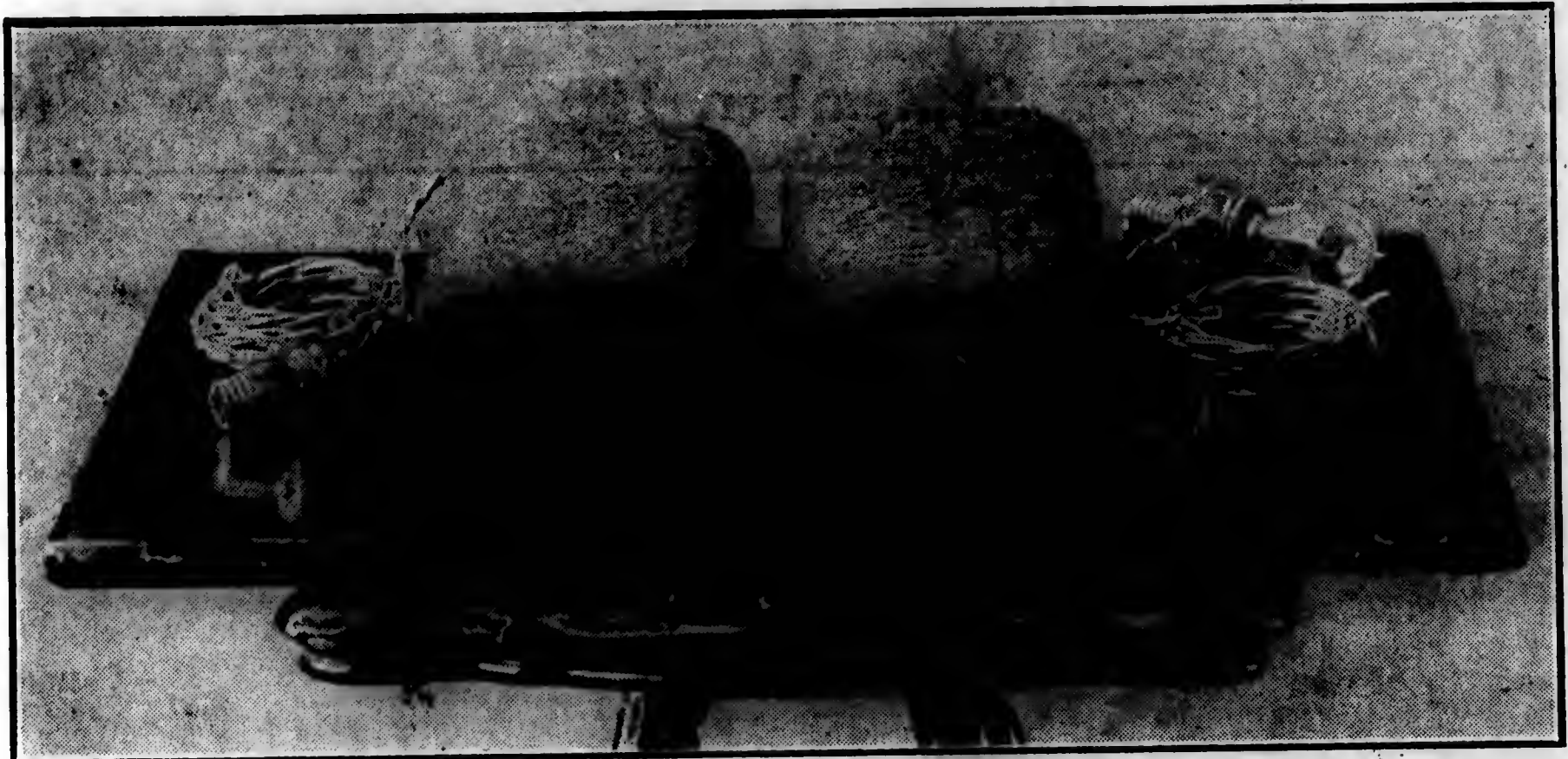
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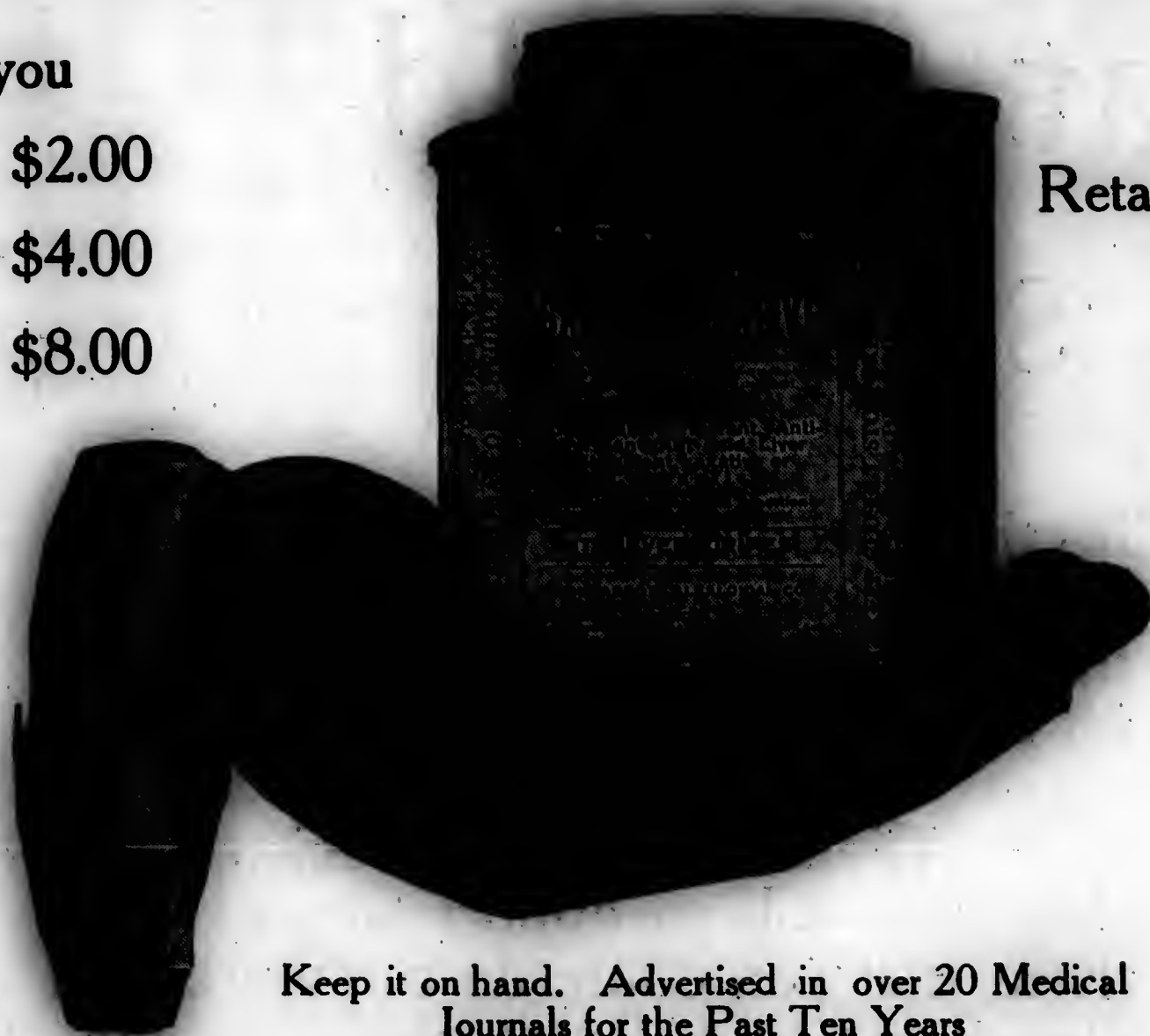
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THE Pacific Pharmacist

Official Organ of the California Pharmaceutical Society

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

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Editorial Notes

WHAT HAS PHARMACY TO OFFER A YOUNG MAN?

Within a few weeks over eighty schools of pharmacy in this country will have opened their doors to young men and women who desire to study, in order that they may fit themselves for their calling. While many will enter these schools, many others employed in drug stores will refrain from doing so, some because they are too indifferent to care to do anything well, and others because they have not satisfied themselves that there is anything in pharmacy worth their while. This suggests the inquiry, "What has pharmacy to

offer an intelligent young man or woman? Is it worth their while to devote the time, the money and the application necessary to attain the qualification that promises success?"

It may be noted at the outset that any person with sufficient intelligence to ask this question will have made up his mind that it is only by study and well-directed effort that he can expect to place himself in the front rank among pharmacists; and it almost goes without saying that such a young person expects to go to a college of pharmacy as a matter of course, if he intends to be a pharmacist.

The writer has had experience in the

training of many hundreds of young persons, and has found that, with a large proportion of these, the first consideration has been the money that they could earn. In the case of others who have consulted him and have decided not to take a college course, or having commenced, have discontinued before graduation, the reason in almost every instance has been the prospect of immediately earning money that could not be made while going to college.

Salary v. College Some in years gone by have formed the opinion that drug clerks' salaries were too low, and, seeing no prospect of going into business for themselves, have taken up with some other calling where the present salary was better. He recalls the case of a young man at one time in his employ who had the means of obtaining a pharmaceutical education, when a position was offered him as a driver of a stage-coach, and the last the writer heard of him he was still a stage driver. On the other hand, he remembers another young man who gave up a position in which he was earning \$75 per month to work for two years for \$35 a month with college privileges, the student paying all the college expenses himself. This young man is now a prosperous, well-to-do pharmacist, notwithstanding he has almost from boyhood had to assist in maintaining others besides himself, and has never had a dollar of help from relatives or friends. He says that the cost of going to college was very hard to meet, but it was **the best investment he ever made in his life.** Another gentleman of the writer's acquaintance engaged in business at a long distance from college, made arrangements whereby he was able to attend college, and since

he has graduated has several times said that he considered that money a splendid investment.

It is a mistake for a young person to consider the immediate making of money the main object in life. "Youth is the season of instruction." The time to devote to study and to the acquisition of technical skill is when the student is not overwhelmed with business care or family responsibilities. The person who has learned to do one thing well is best fitted to learn any other thing which he may desire to do. A boy of 17 or 18 can earn more for himself by study than he can by working for wages. In the majority of cases he who at that age will apply himself earnestly to the acquisition of the knowledge which his calling requires, will be better off financially at 30 years of age than the youth of the same age who seeks to earn money and lets the study go.

Druggists' Earnings But while it may have been true some years ago that the wages of drug clerks were inadequate, that can scarcely be said now, when the salaries of drug clerks compare favorably with those in other business. A youth desiring to attend college can now usually earn his living while learning a business—some make more and others less. We will speak of the one who has been to college, has applied himself industriously and has graduated. He now has a fair start, as the "commencement" exercises indicate; he is ready to continue his studies without further supervision by teachers, and has an equal show with his competitors in business. If he continues his studies he will always be learning something, and in the meantime can save a little out of his salary. There is reason to believe that the scarcity of drug clerks will continue, and that

salaries will continue to be as good as they now are.

He Goes Into Business But what are his prospects if he goes into business? We assume that he has been graduated at college, has had five years or more of experience in pharmacy and, so far as his commercial training goes, is as well fitted to engage in business on his own account as he would have been had he devoted the same time to some other pursuit. If he has a capital of from \$2,500 to \$5,000 he has a fair chance of success, either as a partner in an established concern or in a pharmacy all his own. If he has double the latter amount of money, success is almost certain, unless he badly mismanages his affairs or has unusual misfortune. Probably no other occupation of a mercantile character offers equal promise of a good living and ultimate competency, with the same investment of money. Undoubtedly this consideration led many persons 20 or 30 years ago to engage in the drug business, the result being that it was greatly overdone. Now that more capital is required, the number fitting themselves for pharmacy has greatly diminished. Hence there is a scarcity of drug clerks and fewer drug stores. This has caused salaries to increase and proprietors to look with increasing favor upon some form of consolidation or co-operation. Other changes are taking place which we need not here discuss, but the fact remains that the prospects of a capable, well-trained young man, with a moderate capital, are as good in pharmacy as in any other business we know of, and better than most.

Incidental Advantages There are, however, some incidental advantages arising out of the calling of the pharmacist that should

not be overlooked in comparing his pursuit with that of others. The study of chemistry as taught in pharmaceutical schools opens to the mind a wide range of knowledge of the constitution of things, and this is greatly supplemented by what he learns of botany, vegetable physiology, pharmacognosy and bacteriology. The result of this is that he acquires a knowledge far above the average of men, of **what things are**—the chemical constitution, not of drugs only, but of almost all kinds of substances, especially in the vegetable world, but also in the mineral and animal. He learns much of the laws of chemical action, of the conditions of physical and chemical change, and of the processes adopted to effect such changes as may be desired. The pharmaceutical processes of extraction, purification, precipitation, distillation, etc., render him apt to undertake similar operations on a larger scale. His powers of intelligent and accurate observation have been developed, enabling him to turn to his own benefit much that he sees and learns in the course of his daily life. These characteristics in the pharmacist often cause him to drift out of the drug business because he has seized upon something that seemed to offer superior inducements to a person of intelligence and enterprise.

New Experiences And beyond all this, almost every day brings him some new experience, and adds something to his fund of knowledge. Work that is drudgery to some who labor mechanically is a pleasure to him, because he sees with his eyes and hears with his ears and understands with his mind. The joy of a fact learned, a difficulty overcome, a process improved, more than compensates him for long hours and laborious efforts.

A Useful Man Again, the well-informed pharmacist has a reward in the fact that he is of use in the world. Almost every day, and sometimes several times a day, he serves some one. More probably than any other trader, he gives information that helps and caution that saves those who come to him in the way of business. The value of life is not so much in what it gives to us, as in what it enables us to give to others. From this standpoint the pharmacist occupies an enviable position. His life is worth living and money is not the only compensation he gets out of it.

OREGON PHARMA-CEUTICAL ASSOCIATION The Annual Meeting of the Oregon Pharmaceutical Association, held last July, showed what can be done by a live organization. Our own State society may well take a few hints from what they did.

In the first place, fully seventy persons found time to leave their places of business for three days and go and have a good time at a summer resort. They went, not with the votaries of fashion and display, but with their fellow druggists, their competitors in trade, their rivals and yet their neighbors, with troubles like their own and trials just the same. They went, young and old, rich and poor, brothers and sisters, sweethearts and wives, all prepared to enjoy themselves and to help the others to do the same.

Pulling Together Not only did they have a few days' delightful recreation, but they learned something. They became better acquainted with each other. They learned that there was much they could accomplish by all working together.

By pulling together they have been able to obtain a better pharmacy law and a more stringent Itinerant Venders' law. They looked up from their own little mortar and pestle, and saw standing before them in full stature awaiting their attention, **Opportunity**, whom some never see, because they are short-sighted, or look habitually down when they should look up. They learned that they have power, and that the exercise of it is sweet. They now seek to influence the Governor in the selection of the Board of Pharmacy. They are beginning to feel their way—they can hardly see it yet—to obtain better educated pharmacists, and if all felt as President Laue does, they would soon get this greatly-to-be-desired boon.

These are only a part of what our Oregon friends got out of their meeting. It was worth more than it cost. Why could not California go and do likewise? We have more material to work upon, and more attractions inviting us. What is the matter? Isn't the California pharmacist a good deal like Bunyan's man with the muck-rake? Who says "It shall be so no longer?"

Better Educated Pharmacists President J. M. A. Laue, in his "Message" to the Oregon Pharmaceutical Association, urged higher educational qualifications for pharmacists, and after paying a tribute to the Pharmacy Department of the Oregon Agricultural College and urging young men and women to attend it, says: "To prove to you that higher education is not a myth, I will briefly refer to a few facts. Having been connected with the State Board of Pharmacy as examiner for over 17 years enables me to judge the value of college-trained students as compared to those

who have not had this privilege. At the last meeting of the board there were 21 candidates from the Oregon Agricultural College, and about the same number from different parts of the State. Of this number, three failed to receive the required percentage to entitle them to certificates, eight received from 79 1-5 to 86 3-5 percentage, while nine of them received over 90 per cent, and one candidate's general average was as high as 97 per cent. While against this showing the averages of the non-college attending candidates were from 51 to 84 4-5 per cent, not one receiving even an average of 90 per cent, while there were nine of the college boys that received that amount and over. Do you mean to say (after hearing these statistics) that college training does not pay? I wish our pharmacy law could pattern after that of the State of New York, where only college graduates can appear before the board for examination."

Our experience for 10 years as an examiner on a board of pharmacy fully corroborates President Laue's statement.

Pacific Coast Pharmaceutical Conference We quote further from the above message: "We do not want to forget the movement that is on foot to launch the Pacific Coast Pharmaceutical Conference, comprising the States of California, Nevada, Oregon, Washington and Idaho. California is most anxious for such an organization, and it is proposed that our first meeting be held in San Francisco some time in 1908. Later, I would like to hear expressions from those present with reference to the feasibility of forming a Pacific Coast Association, and how many throughout this State would attend and support it?" Subsequently a resolution was passed endorsing the Pacific Coast

Conference, and several persons intimated their intention to attend the meeting.

The American Pharmaceutical Association After recommending "unswerving support to the N. A. R. D.," President Laue turned his attention to the American Pharmaceutical Association, and said: "Every druggist in the State ought not only belong to his own State association, but to the American Pharmaceutical Association as well. To belong to such an organization, to be able to attend their sessions, or even to read and study the 'proceedings' of their meetings broadens one's ideas and better qualifies him to the pursuit of his profession. If you are not a member, allow me to present your name, not only to our own association, but to become a members of the A. Ph. A. as well. The 'Proceedings' of the annual meeting of the American Pharmaceutival Association, with the 'Bulletin,' which is mailed monthly, is well worth the price asked."

The above references and quotations are but a small part of the president's message, but they suffice to show its general character, and we congratulate the association on the comprehensive review it gives of pharmacy and its needs in the great State of Oregon.

A GRACEFUL COMPLIMENT Among other resolutions passed by the pharmacists of Oregon, at their recent annual meeting, was the following: "In addition to the assistance we can render the above associations, we ought not to overlook our duty to support our home paper, The **Pacific Drug Review**, which is the official organ of our association. Mention might also be made of a new paper in a new dress, the **Pacific Pharmacist**, edited by Prof. W. M.

Searby, with a brilliant corps of assistants."

The **Pacific Drug Review** is now in its nineteenth year, and has been greatly improved and enlarged under the editorship and management of Mr. Guy T. Ketcheson, and well deserves its popularity in Oregon.

As for the **Pacific Pharmacist**, it is so very young it cannot say much for itself, but it does want to list its thanks to its good friends in Oregon for their kind words. Though hardly out of its swaddling clothes, it is very healthy, it is growing fast, it has just cut its eye-teeth and hopes soon to have a voice that shall be heard from British Columbia to Mexico. And if that voice should at times "carry" so far as to pass over the Rockies, it will not be in peals of thunder. Rather it will be in gentler tones repeating the refrain, "live and let live."

GOVERN- MENT OWNERSHIP OF THE PHARMA- COPŒIA

Our enterprising contemporary, the **Druggists' Circular**, has been endeavoring to bring out the views of pharmacists and physicians on the question of the ownership and control of the Pharmacopœia. For some time the feeling has been growing that the Pharmacopœia should be a government publication, and this feeling has been strengthened by the fact that the Federal and several State laws have constituted this work and the National Formulary the standards for determining the quality and purity of drugs. Logically it must be admitted that since the United States government appeals to these works it should have charge of the details of their revision and publication; but there are a number of points that should be considered before we change the present methods.

The Best of Its Kind In the first place, it is generally conceded that after due allowance has been made for numerous defects and errors, the United States Pharmacopœia is the best work of its kind that has heretofore been published in any country.

In the next place, we believe that the present Revision Committee is absolutely incorruptible, and that money which has been able to buy all kinds of legislators, municipal, State and Federal, has not been able to purchase concessions or favors from the men who are the makers of the Pharmacopœia. While some of the departments of the Federal government are probably equally pure, there is at least a danger of corruptible persons obtaining positions of influence in the Government Bureau that would have in charge the work of revising the Pharmacopœia. Membership in the Revision Bureau might be sought for the sake of the opportunities it might give in the way here suggested.

When we remember that **Danger** slight changes in the standards of chemicals and preparations would favor certain manufacturers, we see that this danger is not purely one of the imagination. We have heard that in at least one instance money was offered to induce the revisers of the Pharmacopœia to adopt a standard that would have favored a particular brand of goods. Are we sure that government officials would be as incorruptible as the present committee?

Must Government Revise Standard While it does not seem logically consistent that Federal and State laws should set up as their standard a work in whose prep-

aration neither government had a hand and over whose publication neither of them had control, it may be mentioned that this is commonly done in all the law courts of the land with regard to Webster's Dictionary, whose definitions are accepted and quoted and made the basis of legal decisions of the utmost importance. Yet Webster's Dictionary is issued by a private firm, and no one ever thought that it was necessary that the government should control its publication.

Errors Complaint has been made by those opposed to the present mode of publication that the Pharmacopœia contains many errors, and it would seem as if this objection was a serious one, when we remember the numerous corrections which have recently been published. Many of these, however, are trifling and others have been made because the Pharmacopœial standard had been set too high in view of the use that was made of it subsequent to its compilation. When these changes have been eliminated from the account, it is probable that the work is as nearly perfect as it would have been if issued by government officials.

Whether the Pharmacopœia is to be controlled by private or government authority, we think the time is at hand when steps should be taken to overcome some of the objections that now apply to the work, and we venture the following suggestions, which should be put in practice at the earliest possible date:

Suggestions First, that the price of the book should be considerably advanced, say 50%. This would be for the purpose of providing funds wherewith to carry on the work of revision.

Second, that a laboratory should be erected for the purpose of conducting

the chemical, microscopical and other work necessary to the production of a publication as free as possible from error.

Third, that experts should be employed, devoting their entire time to this work. Probably not more than three persons would be needed for this purpose, because these would call upon outside experts for unusual or special work.

Fourth, that it should be the duty of these experts, or the committee under whose direction they worked, to publish the Pharmacopœia once in five years.

An objection to this plan will be found in the expense involved, and to our mind, the cost of a plant like this is the strongest argument in favor of government ownership. If the United States government once undertook the work, the cost of making it perfect would scarcely be thought of. Perfection in the result would be almost the only consideration. Would it be possible to secure the benefits of the influence of the American Pharmaceutical Association—that is, of the great body of pharmacists of this country—under government management? We seriously doubt it.

Influence of the A. Ph. A. That the influence of the American Pharmaceutical Association, acting through its various committees, upon the work of revising the Pharmacopœia cannot be withdrawn without great injury is shown by the hasty action of the government regarding the sulphuring of fruit. Here a small body of officials, exercising governmental powers (the Department of Agriculture) has done great harm by establishing a standard without previous conference with those who are practically familiar with the details of the business.

Whatever may be the ultimate issue of this question, our feeling is that at present we are opposed to a change. The experience we are having with the Pure Food and Drugs Law, a most excellent thing in the main, in regard to the labeling of drugs and sulphuring of fruits, and the arbitrary rulings in which immense private interests have received scant consideration, suggest to us to "go slow" in giving authority to persons who have no interest in the results of their edicts, and only a limited knowledge of some of the facts that ought to be considered.

SULPHURING FRUIT

California has been greatly agitated over the promulgation by the Department of Agriculture of the regulation limiting the amount of sulphurous acid in dried fruits to .035 of 1 per cent. As the German government, which is probably the most rigorous in the world in its regulations concerning food adulterations, allows .125 of 1 per cent in the same products, it would appear as if our government had gone to an extreme.

Investigation Needed The whole subject is being investigated from start to finish, and out of these investigations

and the experimentation following them will doubtless come a ruling that will protect the public from any injurious effects that might possibly follow the use of sulphurous acid and yet not work a hardship on the farmers and dealers. It has been alleged that the trouble is not so much due to the farmers' sulphuring in curing their fruit for the purpose of making it uniform in appearance and preserving it from becoming wormy after shipment, as to the practice of the packers of dipping and resulphuring, a process which

doubtless enables them to obtain a product more uniform in color, and thus still further improve its appearance while saving much expense in sorting and grading.

While the government has intimated its intentions not to strictly demand its requirement to be lived up to this year, it will insist upon all fruit products being carefully labelled. Before another year's crop has to be cured, it is pretty certain that some decision will be arrived at by the Department of Agriculture that will permit of a reasonable latitude in the sulphuring process, so that producer, packer and dealer may feel safe in handling these goods.

Department too Hasty

What we complain of most is that the government should issue regulations vitally affecting a large industry involving values approximating 20,000,000 of dollars without first making sure that their requirements were necessary. A great wrong has been done, and many innocent persons seriously injured. Hasty legislation is almost always bad, whether it affects pharmacy or farming.

The San Francisco Bay Counties Association of Retail Druggists is arranging to have a meeting and luncheon on Mount Tamalpais, Tuesday, September 24. The prospects are that it will be the largest gathering of the Bay Counties Druggists that has been held for many years. The arrangements for this meeting are in the hands of President F. T. Green, K. B. Bowerman, D. H. Wilson, F. C. Fuller, J. J. Mahoney, N. A. Ayers, J. H. Boyson, and W. B. Cheatham. I. Tobriner, A. L. Leber, W. A. Wishart, and Willis Collins have been appointed as assistant committee in Oakland, Alameda and Berkeley.

ETHICAL PROPRIETARIES.

An effort is being made, as doubtless our readers are aware, to find out which of the hundreds or thousands of proprietary medicines deserve the patronage of the medical profession. The American Medical Association, through its Council on Chemistry and Pharmacy, is examining, as expeditiously as may be, chemical and galenical proprietaries, patented, copy-righted, or trademarked, and exploited by the various means of advertising now found most effective in bringing these goods to the favorable notice of physicians and druggists. This work has been going on for about two years, and hundreds of these articles have been examined by chemical analysis and otherwise, and the findings given to the world. Between two and three hundred have been approved.

What are the results to date? Is it possible for a physician to select from the preparations already approved such as suit his purpose as a prescriber? We have made some inquiries with a view of finding out whether physicians are taking the trouble to inform themselves as to which of these compounds are ethical and which unethical, and whether they are prescribing the former and tabooing the latter. So far as our inquiries have gone, the results are negative. Pharmacists tell us they are receiving just as many prescriptions as ever calling for the remedies discriminated against by the Council of Chemistry and Pharmacy. Indeed, it seems as if the majority of physicians do not stop to think, but go on prescribing the medicines from which they have obtained satisfactory results.

If, on further investigation, it should be found that the facts are as they appear to us, it would be somewhat discouraging to the Council of Chemistry and Pharmacy. Yet their work cannot fail to produce good effects. Proprietary remedies, whether chemical or galenical, will be exploited by less questionable methods. Statements concerning their composition and properties will be less untruthful, perhaps, it is to be hoped, truthful. It is time that misrepresentation and fraud were done away with. They are not necessary in business, and pharmacists should be among the very first to discard them, depending for success upon the purity and excellence of their products, and upon their own reputation for competency and integrity.

While we contend for absolute truthful-

ness in the labeling and advertising of proprietary medicines, whether official in the U. S. P. and National Formulary or not, we do not advocate that the manufacturer should be compelled to give all the details of his manipulations to the public. It is for him to give or withhold this information as he sees fit. So long as his preparations, if official, are true to the established standard, or, if unofficial, are true to label as regards their composition, and true to fact as regards their properties and action, we should class them as ethical. No one has the right to demand that full working formulas be made public. All large manufacturing houses employ chemists and other scientists to conduct investigations with the object of overcoming difficulties experienced in making or preserving their products, of assaying drugs, of testing chemicals, and of devising new processes or improving old ones. These and a score of other things are going on all the time in these chemical and pharmaceutical laboratories, and the results of this experimentation are of the greatest benefit to pharmacy as well as to the firms making the investigations. If these firms gave to the public, that is, to their competitors, all the results of their work, they would have the burden of the cost, and their "neighbors" would have the benefit. This would soon put a stop to all such research, and the loss to pharmacy, and, therefore, to the public, would be great.

Thus protected in the details of their business, manufacturers—chemists and pharmacists—will continue to employ chemists, bacteriologists, pharmacologists, engineers, etc., in order to produce the finest and most elegant products at a moderate cost. So long as these are marketed by truthful representations to druggists and physicians, not to the laity for self-medication, neither the physician nor the retail pharmacist should complain. If the retailer can make a better or nicer preparation than the large manufacturers, or one equally good at a less cost, let him do so, and forthwith take a leaf out of the big man's book—**go and let the doctors know about it.** Properly and truthfully exploited, the best will win, and ethical pharmacy will not suffer.

Proud Father—"My child is only a month old, and he cries for the moon."

Proud Mother—"Mine isn't a week old, and he cries for the milky way."—Puck.

CONDENSED REPORT OF THE MEETING OF THE AMERICAN PHARMACEUTICAL ASSOCIATION. FIFTY-FIFTH ANNUAL MEETING, NEW YORK, SEPTEMBER 2, 3, 4, 5, 6 AND 7, 1907

The Association met in the City of New York, after an absence from the great metropolis of just forty years. Arrangements had been made by the local committee for holding the general, sectional, committee, and other business meetings in the magnificent Hotel Astor, whose appointments are on a scale of grandeur rarely seen, and are admirably adapted to the purposes of the Association and the comfort of its members. The register showed an attendance of 403, which is one of the largest in the history of the Association, and included representatives from 61 societies, to which should be added the Bureau of Chemistry of the Department of Agriculture, etc., in the persons of Dr. H. W. Wiley and Dr. Lyman F. Kebler.

The First Session

Was opened by the president, Leo Eliel, of South Bend, Ind., promptly at 3 p. m. on Monday, September 2, in the small ballroom of the hotel. There was an unusually large attendance for an opening meeting, among the number a goodly representation of the fair sex. Thomas B. Cook, secretary of the local committee, welcomed the Association in place of the Mayor. Dr. W. C. Alpers in eloquent words extended a welcome in behalf of "the 2,000 druggists of Greater New York and the 500 drug dealers."

The president then introduced Dr. Solomon Colis-Cohen, of Philadelphia, who presented the greetings of the American Medical Association. In forceful words he made an appeal for ethical pharmacy and for a better understanding and more mutual co-operation between the medical and pharmaceutical professions.

Mr. Edward Williams, of Madison, Wis., presented the fraternal greetings of the National Association of Retail Druggists.

Mr. A. M. Roehrig presented greetings as a delegate from the U. S. Public Health and Marine Service, and Mr. Paul J. Waldner from the United States Navy.

Dr. H. W. Wiley, of the Department of Agriculture, was then introduced, and,

speaking as a member of the Association, made an urgent plea for ethics in trade.

Prof. J. P. Remington then presented to the Association Prof. José Guillermo Diaz of the University of Havana, who, recognizing the superiority of the United States Pharmacopœia, had himself translated it into Spanish for the use of the students in that university. He said it was the best pharmacopœia that had yet been produced, and was largely used in the medical and pharmaceutical schools of Havana.

W. M. Searby was called upon as a member who had come the greatest distance in order to attend the meeting to respond to the greeting of the New York druggists. In responding he took occasion to thank the Association for their kindness and sympathy at the time of the holocaust in San Francisco in 1906. He also thanked, through the Association, the druggists of the United States for their prompt and munificent contribution to the relief of their brethren; also the N. A. R. D. for organizing the work of obtaining funds, and afterwards for their judicious and kindly offices in distributing them.

Thomas F. Main, of New York, reported that the credentials of 61 societies had been approved. The president then asked Vice-President Hallberg to preside while he read his annual address. See page 238.

The address was referred to a committee, consisting of C. Holzhauer, W. M. Searby, and H. P. Hynson, with instructions to report at the next general session.

Dr. H. M. Whelpley, of St. Louis, secretary of the Council, read his report, which showed that the Council had received 32 new members. The local branches had added 7 new members to the Council, which now consists of 28, as against 21 a year ago.

The minutes of the Council showed that the Ebert estate, which had been bequeathed to the Association, would realize nearly \$4,000.

Prof. H. P. Hynson, of Baltimore, announced the sudden and serious illness of Professor C. Lewis Diehl when on his

way to the meeting. He had been taken to the German hospital in Philadelphia and while still seriously ill, was believed to be out of danger. As showing his great interest in the Association, he had dispatched his daughter to New York with his committee reports, so that the business of the Association might not suffer through his illness. On motion, a telegram of sympathy was forwarded to Mr. Diehl.

The Nominating Committee was then appointed, each State in the Union being entitled to two members, with five delegates-at-large appointed by the president.

The meeting was then adjourned and the Nominating Committee was immediately convened, with Professor J. P. Remington presiding.

The President's Reception.

It is customary for the president to hold a reception to the members, and this pleasant function took place on Monday evening in the ballroom of the hotel. President Eliel took his stand at the head of the receiving line and greeted the members, their wives and daughters as they entered the room. After a while dancing commenced, a larger number participating. Promptly at midnight all marched into an adjacent room, where a bountiful supper was served. This feature of the entertainment was in charge of C. O. Bigelow, T. P. Cook and W. C. Alpers.

Second Day, Tuesday, September 3d.

At 10:00 A. M. the Association convened for the transaction of general business. The Nominating Committee presented their report recommending the following persons for election as officers of the Association for the ensuing year:

Officers for the Ensuing Year.

President, W. M. Searby, of San Francisco.

First Vice-President, Oscar Oldberg, of Chicago.

Second Vice-President, H. H. Rusby, of New York.

Third Vice-President, O. W. Bethea, of Meriden, Mississippi.

Treasurer, S. A. D. Sheppard, of Boston.

Secretary, Charles Caspari, Jr., of Baltimore.

Reporter on the Progress of Pharmacy, C. Lewis Diehl, of Louisville.

Members of the council, to serve three years—Leo Eliel, of South Bend, Ind.; E.

G. Eberle, of Dallas, Texas, and F. C. Godbold, of New Orleans.

The report was accepted and the officers unanimously elected.

C. S. N. Hallberg, of Chicago, editor of the Bulletin of the A. Ph. A., gave some figures concerning this publication: 40,000 copies of the convention issue had been mailed, the expense of which had been largely met by donations from members of the Association, and by the sum of \$200, paid by the Board of Trustees of the U. S. Pharmacopœia, for printing and distributing the corrections to be made in the Pharmacopœia.

In accordance with the recommendation of the Council, P. C. Candidus, of New Orleans, was elected honorary president by a standing vote.

Treasurer S. A. D. Sheppard, of Boston, submitted his annual report, showing the receipts for the year to have been about \$4,000 more than the expenditures. A close scrutiny of the account, however, shows that this excess is just about the same amount as the profit on the National Formulary.

President Sheppard announced his wish to retire from office one year hence, when he will have served 22 years. He thought it best, as the office is practically a permanent one, and should be as far as possible, that he should give time for the members to think the matter over and select a successor. He claimed that the office called for a young man, a good bookkeeper, active, capable, and interested, and he thought it was best that he should retire while he was still active.

He referred to the receipts and expenditures on account of the National Formulary, and said that the profit was not commensurate with the labor expended upon it. He suggested that the retail price be raised to \$1.50. Speaking of the Endowment Fund, he said that the A. Ph. A. was a pharmaceutical university and its work a post-graduate course. All universities needed endowments, and so did the A. Ph. A. Its ordinary revenues are insufficient for the work that is opening up before it. It should have an endowment, and the fund already amounting to a few hundred dollars, was open for contributions, small and large.

(Some of our readers may not be aware that a year ago Treasurer Sheppard and Prof. James H. Beal, of Ohio, offered during their lifetime to add to this endowment

five dollars for every hundred dollars contributed by others, until the amount of \$25,000 was reached.)

The report was received and the suggestion with regard to Mr. Sheppard's successor was referred to the Council.

General Secretary Charles Caspari, Jr., read his annual report, which was referred to the Committee on Publication.

Prof. J. P. Remington read his report as Chairman of the Committee on Revision of the United States Pharmacopœia, which we hope to publish in a later issue. Speaking of the errors in the United States Pharmacopœia, he said there were but ten in a book of 693 pages. All of these had been corrected after Series A had been sold. In regard to the "Additions and Corrections" recently published, he stated that these numbered 431, but they chiefly interested manufacturers, and were of no special interest to medical men. They were made almost entirely in consequence of the Pure Food and Drugs Act, making the Pharmacopœia the standard of strength and purity, and even of these 431, no less than 157 were made necessary by one change in physical constants.

C. Caspari, Jr., Chairman of the Committee on Publication, submitted his report, from which we quote as follows: "Your committee is also much pleased to report that the demand for the new edition of the National Formulary exceeded its expectations, and that it became necessary to print not less than 24,000 copies of the book during the past year. The demand seems to continue, and there is every prospect of a financial success for the book. In February last it was found necessary to make certain corrections and changes in the plates, which were furnished by the chairman of the National Formulary Committee, and a four-page circular of such corrections and changes was printed for the benefit of those who had purchased the book prior to March 1; a good supply of this circular was sent to dealers for distribution among their customers. The total expense to date of publishing the third edition of the National Formulary amounts to \$7,128.93, to which must, however, be added the sum of \$689.08 spent for advertising the book in the spring of 1906. While a supplement to the National Formulary may be desirable within the next two or three years, there does not seem to exist any necessity for another revision of the book until after the next revision of the

U. S. Pharmacopœia. An account of the receipts from sales of the National Formulary will appear in the report of the general secretary.

George J. Seabury, Chairman of the Committee on the Status of the Pharmacist in the Army, Navy and Marine Hospital Departments, presented his report, which was referred to the Committee on Publication.

At this point Dr. W. C. Alpers asked for permission to speak on a question of personal privilege; he referred to an article that had appeared first in the Journal of the California State Medical Society, and afterwards in the Journal of the American Medical Association, but of which he knew nothing until some months had elapsed after its publication. He noticed that first one and then another physician withdrew patronage from his place of business, and he believed that not less than six physicians had discriminated against him because of this publication. He was at a loss to understand why they had done so, until some one showed him this article. The article in question charged him with putting on the market a number of preparations which it was claimed were unethical, but with which he had nothing whatever to do. The preparations in question were manufactured and marketed by the Alpers Chemical Company, who had bought out his business some time since, but chose to continue the use of his name as designating their store. He, however, had no more to do with those preparations than had the editor of the Journal of the California Medical Society with Jones' Liniment, or the editor of the Journal of the American Medical Association with Simmons' Liver Regulator. He had supposed that of course no members of the American Pharmaceutical Association, who had known that for fifteen years he had been contending vigorously for ethical pharmacy, would imagine for a moment that he was guilty as charged. But he had learned to his surprise since he had come to this meeting, that there were a number of members who did not know the circumstances, who thought that he was putting up a line of secret remedies while contending for ethical pharmacy. He wished, therefore, to very distinctly and emphatically disavow any responsibility for the alleged breach of ethics.

The committee on the president's address reported approving his recommenda-

tion that the Association take steps to bring about the establishment of a national department of health; they also approved of his position in reference to the beneficial effects of the National Pure Food and Drugs Act.

The Committee on Time and Place of Meeting reported in favor of Hot Springs, Arkansas, for the next year's meeting. They reported a number of invitations, among them Los Angeles, Niagara Falls, Put in Bay, and Cedar Point.

A motion to adopt the recommendation of the committee having been moved and seconded, W. M. Searby moved as a substitute that the Association meet next year at Los Angeles. He said it was nearly twenty years since the Association had been to California, and it was time to come again. He said that Los Angeles was a delightful place to visit, and the citizens would do themselves proud in entertaining them. But Hot Springs won the day, and the invitation from Los Angeles, which had been backed by the druggists, wholesale and retail, the Board of Trade and Chamber of Commerce, was referred to the Committee on the Time and Place of Meeting for next year.

W. M. Searby, of San Francisco, submitted his report as chairman of the Committee on Weights and Measures. He stated, however, that it did not represent the views of the entire committee. There was great difference of opinion among the members, and the report recommended that an effort be made to obtain a smaller committee who might work in concert.

An overture was presented from the Maryland Pharmaceutical Association requesting a closer affiliation of the State and National Pharmaceutical Associations. No action was taken, probably because it was not clearly understood what was wanted.

On motion the Association adjourned to Saturday morning.

SECTION ON PRACTICAL PHARMACY AND DISPENSING

Second Session, Tuesday, Sept. 3, 8 P. M.

The first business was the election of officers for the ensuing year, which were as follows:

Chairman, Franklin M. Apple, Philadelphia; secretary, Joseph Weinstein, New York; associates, T. Fullerton Cook, Philadelphia, and Wilbur L. Scoville, Boston.

Franklin M. Apple then read a paper on Counter Prescribing and Dispensing. This paper was discussed at length until the time of adjournment.

SECTION ON EDUCATION AND LEGISLATION

Wednesday, Sept. 4, 10 A. M.

Chairman Dr. Oscar Oldberg read his address, which was a very lengthy and able paper, giving a comprehensive view of pharmaceutical education and of the bearing it had upon the action of State boards. We hope to produce the address in full in a subsequent issue.

The officers of the section had prepared a series of questions to be discussed. The first was as follows:

1. What are the best means which the pharmacists may adopt to render their services most valuable to the medical profession and the public, and to command their confidence and appreciation?

Dr. H. H. Rusby here introduced Dr. J. N. McCormack, a delegate from the American Medical Association, who spoke on the relations between physicians and pharmacists, in which, while bearing the fraternal greetings of the medical profession, he took occasion to score the pharmaceutical body severely for certain evils and practices which he believed were chargeable to them.

Dr. McCormack's address provoked considerable opposition, the discussion thereupon being warm and vigorous. Some of his statements were flatly denied, and, while the facts in others were not disputed for want of reliable data, the intimation that druggists were the cause of the evils produced by habit-forming drugs was vigorously repelled. The statement which he had made on a former occasion that 75 per cent of all the cases of insanity in some State institutions could be traced to these habit-forming drugs was shown to be open to question; while even if it were true, the medical profession had a large share in introducing the use of these drugs to their patients. It was contended that both medicine and pharmacy had need of ethical reform. Dr. McCormack's charge that the N. A. R. D. had maintained a lobby for the purpose of protecting the nostrum manufacturers was denied. No such lobby exists, or has existed. The legislative committee of the N. A. R. D. endeavors to

promote national legislation, but does not interfere with State legislation.

C. S. N. Hallberg hoped that the Association would not forget the advice of Solomon—Solis-Cohen, and get at loggerheads. This is no time for the pot to call the kettle black.

Dr. C. B. Lowe, of Philadelphia, denied that the lectures on "First Aid to the Injured" which were given in some schools of pharmacy, were for the purpose, as intimated by Dr. McCormack, of teaching pharmacists to prescribe. He well remembered how, years ago, when he was working in a drug store, before he knew as much as he now knows of medical practice, what an advantage it would have been, both to himself and the victims of accidents that occasionally occurred, when he was called upon to render prompt assistance before a physician could be obtained, if he had known just what to do. Such lectures were in the interest of humanity, and in no way conflicted with the interests of the medical profession.

Prof. W. C. Anderson, of Brooklyn, said there should be but one standard. Druggists who sell and doctors who prescribe habit-forming drugs belonged to the same class and should be treated alike. There is no more reason why druggists who violate ethics in this matter should be under legal restrictions than physicians. The New York State law requires that cocaine-containing drugs should be so labeled. As soon as the nature of many of these preparations was known a number of druggists threw them out, but all proprietary medicines cannot be kept out of the drug store, because no druggist could dispense the prescriptions that come to his store if he did not keep a number of these patent medicines.

Dr. McCormack was invited to reply to these criticisms, and in doing so withdrew in a very graceful manner a portion of his arraignment of the druggists and the N. A. R. D. The statements which he had made had evidently been based upon misinformation. He suggested that a committee of physicians and pharmacists might be able to provide a list of such harmless domestic remedies as the druggists could sell without restriction.

Dr. Robert Hatcher, of New York, submitted the following resolution:

That the American Pharmaceutical Association be requested to direct the Committee on Legislation to co-operate with the

State legislative committees of the American Medical Association in the furtherance of such legislation as was designed for the mutual benefit of the two professions and the community at large.

The resolution was adopted.

The meeting then adjourned.

Second Session—Wednesday, 3 P. M.

After the officers had been nominated, query five was taken up. It is as follows:

5. What effective action can the American Pharmaceutical Association take to prevent the discredit cast upon our calling by pharmacy laws which in specific terms authorize the boards of pharmacy to license minors and persons without any prescribed educational qualifications to open or conduct drug stores on their own responsibility, to have charge of the dispensing of medicines, and to sell opium, morphine, cocaine and other habit-producing drugs?

The following resolution was offered by Prof. James H. Beal, and after discussion was adopted:

Resolved, That it is the sense of the Section on Education and Legislation of the American Pharmaceutical Association that pharmacy laws which are so worded that they permit or can be construed to permit the issuing of licenses to minors and persons without definitely prescribed educational qualifications to open or conduct drug stores, to have charge of the dispensing of medicines, and to sell habit-producing drugs, cast unmerited reproach upon our occupation and should be amended.

Query two was then taken up:

2. Are the conditions in the drug stores of today such as to warrant the assumption that those admitted to apprenticeship can there acquire the education requisite to make them competent pharmacists? What instruction do the apprentices and clerks receive in the average drug store?

Jacob Diner, of New York, opened the discussion, which was followed by the reading of a paper by Dr. O. A. Wall on High School Education as a Prerequisite to a Course in a College of Pharmacy, which we publish elsewhere in this issue. (Page 255.)

Dr. Taylor, of the Board of Regents of the University of the State of New York, stoutly opposed the views of Dr. Wall, and questioned the accuracy of some of his statements.

C. S. N. Hallberg contended for the correctness of Dr. Wall's statements, and said that the educational facilities in the United

States were far inferior to those of all European countries.

Query three was opened by Jacob Diner, of New York. It was as follows:

3. The apprenticeship system has ceased to exist in nearly all occupations in which it formerly constituted the chief or only method of training by which trades and professions could be mastered, and professional, technical and trade schools have taken its place. It is generally recognized that this change is an advance, and that greatly increased efficiency may be attained through the special schools referred to. Is this true also in regard to training for pharmacy?

And in connection with this topic papers were read by Dr. Gustav Wolff, of New York, and Prof. C. B. Lowe, of Philadelphia:

Query six was as follows:

6. What are the best methods of teaching students of pharmacy in each of the principal branches included in the curricula of the pharmaceutical schools?

The only suggestion offered in answer to this question was a series of lecture syllabi and note-books exhibited by Prof. C. S. N. Hallberg, which he stated he had used with great benefit in his classes in the Chicago College of Pharmacy.

The officers for the ensuing year were then elected, as follows:

Chairman, J. W. England, Philadelphia; secretary, Charles H. LaWall, Philadelphia; associates—L. E. Sayre, Lawrence, Kan.; W. L. Scoville, Boston; F. A. Hubbard, Boston, and F. A. Sala, Winchester, Ind.

The Section then adjourned sine die.

SCIENTIFIC SECTION

First Session, Thursday, Sept. 5, 10 A. M.

The session met in the college room at the Hotel Astor. In the absence of Dr. Reid Hunt, the chairman, Charles E. Vanderkleed, of Philadelphia, presided. The usual address by the chairman was omitted.

Dr. Charles E. Caspari reported from the Committee on the Ebert Prize that it had been awarded to Frederick B. Power and Frank Tuttin, of London, England, for their paper on Eriodyction.

Mr. Gane, chairman of the Committee on Drug Adulteration, read his report, in which he showed that some druggists had been fined for selling adulterated drugs when there was no evidence that the adul-

teration practiced was intentional. He recommended that boards of health should allow some latitude in those cases in which adulteration was manifestly unintentional on the part of the person prosecuted. He stated that the drugs which the committee had examined showed that those supplied by grocers and other dealers were more extensively adulterated than those sold by druggists. He stated also that there was more adulteration practiced in essential oils than in any other class of drugs.

Dr. Rusby, speaking on the subject from his standpoint as the inspector at the custom house of New York, remarked that the drugs now imported were generally of fine quality. He, however, showed samples of some that had recently been rejected, spurious *strophanthus*, *quebracho* bark, consisting largely of wood, etc. He stated that *asafoetida* has greatly improved. Formerly the U. S. P. demanded only 12 per cent of alcohol-soluble matter. It now demands 50 per cent, and the drug coming to market is up to the standard. Yet he was told, before the new requirement was made, that it would be impossible to obtain *asafoetida* that would come up to that standard. More than half the *jaborandi* now in the market is spurious. (Sample shown.) There is still a good deal of chicory sold for dandelion. Bombay mace still comes to market, notwithstanding it is worthless for medicinal purposes, as it contains only resin; it is only fit for tooth-powder. Speaking of the U. S. P. requirements for extract of licorice, he could not understand why only 60 per cent of water-soluble matter was required. If pure it would contain 90 or even 95 per cent. While admitting that something needed to be added to it, so that it could be reduced to powder and kept, he said the Pharmacopœia ought to designate what that something should be.

Referring to the statement in the report that 72 per cent of the articles examined were adulterated, he said the statement was misleading; the articles examined were in almost every case purchased with the expectation that they would be inferior or adulterated; they were not average samples.

Dr. C. E. Caspari asked what the government would do in case pure extract of licorice should be imported and some foreign matter was put in to facilitate powdering; if starch were put in it would be rejected. Dr. Kebler replied that his department had

nothing to do with this part of the subject. He would, however, inquire into it. He remarked that the government was rejecting considerable quantities of digitalis. Leaves of the second year's growth are hard to get.

Some one remarked that digitalis had been found growing wild on the Pacific Coast. W. M. Searby, of California, stated that he had seen it growing wild in some parts of California, and that it also grew in Oregon. Some of the latter had been assayed by students in the California College of Pharmacy and had been found to be of good quality, equal to the best English. He was of the opinion that it could be grown profitably in Oregon and perhaps also in California.

J. Uri Lloyd, of Cincinnati, spoke of the licorice as he had seen it growing in Asia Minor. The valley of the Meander, a river which, by its slow and tortuous course through the valley, has given rise to our English word "meander," a valley from 20 to 50 miles wide and 150 long, fertilized with the blood of heroes, is now a great licorice field and vineyard. The licorice is a weed growing in between the vines. Large amounts of extract of licorice are manufactured there and used in the manufacture of tobacco. Near Magnesia he saw them making licorice by a most primitive method, consisting of two or three boilings of the root, the decoction when evaporated to a certain density sufficient to solidify on cooling being run into boxes holding 112 pounds. He said that no adulterant is put into it, though some dust and other impurities get in in this crude process of manufacture. The excess of moisture is the chief impurity. Evaporating by means of vacuum apparatus had been practiced, but was not a success. As the laborers receive only twenty-five to thirty cents a day and furnish their own meals, it was not easy to find machinery to cheapen the product.

Henry Kraemer, of Philadelphia, presented a paper on *Aspidium Marginale* and *Osmunda Claytoniana*, illustrated by specimens of the dried rhizomes, the living plant and dried fronds. He stated that *Aspidium Filix Mas* was known to be taenifuge and to contain filicic acid. *A. marginale* was known to be taenifuge, but was not known to contain filicic acid, while the *Osmundia* was not taenifuge, and therefore should be rejected. It was being collected to some extent, mixed with the *Marginale*. The plants when growing had some resemblance to each other, except

when in fructification, when the two were entirely different, because the *Osmundia* had fructifying fronds quite different from the other fronds, while in the case of the *Aspidium* the form of all the fronds was the same.

A number of other papers were read at that meeting, after which it was adjourned.

SECOND SESSION

Thursday, Sept. 5, 3 P. M.

Drs. A. R. L. Dohme and H. Englehardt, of Baltimore, read a paper on "The U. S. P. Eighth Revision and Its Relation to Some Drugs and Chemicals." The paper showed why some corrections in the U. S. P. were necessary. Among the articles referred to were acetphenetidin, aloin, amyl nitrite, benzoic acid, boric acid, belladonna, cerium oxalate, cinchona and its preparations, coca leaves, colchicine, hyoscine hydro-bromide, quinine salts, santaloil, spirit of nitro glycerine, etc. The paper was discussed at some length.

Dr. Oscar Oldberg exhibited a chart in which he expressed his views of an improved arrangement of the elements according to the periodic system, and spoke of the usefulness of this arrangement in teaching his classes. Dr. Oldberg's views were not concurred in by Professors Coblentz, Sadtler, Puckner, and others. Prof. Oldberg also gave an address entitled "Some Notes on the Classification of the Principal Organic Compounds."

A. B. Stevens, of Ann Arbor, presented a paper on Poison Sumach, presenting a number of exhibits showing the drug in various forms and some constituents extracted from it. He said that the juice obtained from *Rhus venenata* was practically identical with that obtained from some other species of *Rhus*, and that the poisonous constituent was the benzin-soluble resin, and not, as had been claimed for *Rhus toxicodendron* and *Rhus diversiloba* (the California *Rhus*), a volatile acid. It appeared to be of the nature of an oil. He stated that the fruit was not poisonous, but yielded a considerable amount of a fat similar to Japan wax. A sample of the wax was exhibited.

Speaking of the subject of poison by *Rhus*, he stated that potassium permanganate destroys the poison, and that the lead compound formed with the poisonous substance is not poisonous. He said that

washing the skin with soap is not good, but that coal oil is better.

E. M. Houghton, of Detroit, read a paper detailing experimentation on the physiological action of *Cannabis Americana*, in which he showed that it was fully equal to the *Cannabis Sativa* of India. He was asked whether he had found any difference in the quality of the *Cannabis Americana*, as grown in the warmer or cooler parts of the United States. He stated that they all appeared to be alike.

A number of other papers were read, and the meeting adjourned sine die.

SECTION ON HISTORICAL PHARMACY.

Friday, September 6, 10:00 A. M.

Ewen McIntyre, of New York, in the chair.

This proved a most interesting meeting, and showed that the promoters of this Section have done a good thing in developing it. We hope to publish some of the papers from time to time, and trust that their appearance will stimulate others to prepare similar historical records for preservation.

Among the historical sketches given were those of Henry Canning, of Boston, William A. Goodwin, John Milhau, and Charles Ellis.

The meeting adjourned shortly after noon.

American Conference of Pharmaceutical Faculties.

The Seventh Annual Meeting of this body was held on Wednesday, September 4th, at 8:00 P. M. James H. Beal, of Ohio, presiding. Twenty-one colleges were represented.

President Beal's address was a very carefully worded document on the Purpose of the Conference. He said the fundamental purpose of the conference is service, not profit; service to the science and art of pharmacy by the raising of the general standard of pharmaceutical education, and thus a service to humanity; a service which shall be altruistic, since the members of the congress hope for no reward, save the satisfaction of the workman in his work; utilitarian and practical, since the members intend it to be a service which shall result in the greatest good to the greatest number. In seeking to carry out this high purpose, he declared that it was not advisable to establish uniform requirements for admis-

sion nor uniform courses of instruction.

To do this would eliminate either the old-line schools of pharmacy, or the university schools, both of which were doing good work in their own ways. The address was a plea for a truce between the two opposing parties in the Conference, one aiming at high school graduation and the other at high school matriculation as the requirement for entrance. The address was referred to a committee of three—Prof. J. P. Remington, chairman, who subsequently reported in favor of the suggestions and recommendations of the president, with the exception of the proposition to establish a conditional membership in the Conference. The committee's report was adopted.

Dr. J. T. McGill, of Vanderbilt University, read a paper on the subject of Degrees in Pharmacy, included in which were the following resolutions:

"Resolved, That the American Conference of Pharmaceutical Faculties recommends:

"1. A minimum preliminary educational requirement of high school work of four years for the degree of Doctor of Pharmacy, Phar. D., two years for the degree of Pharmaceutical Chemist, Ph. C., and one year for the degree of Graduate in Pharmacy, Ph. G.

"2. That this standard be raised as rapidly as practicable to the preliminary requirement of four years of college work, i. e., graduation in a college, for the Degree of Doctor of Pharmacy, and four years of high school work, i. e., graduation in a high school or preparatory school of equal grade, for the degree of Pharmaceutical Chemist or the degree of Graduate in Pharmacy."

No action was taken upon these resolutions, as they were practically in conflict with the action already taken by the Conference.

Prof. W. A. Puckner, chairman of the executive committee, reported that during the year the following colleges had been received into membership: Buffalo, New Orleans, and University of Notre Dame.

The following officers were then elected: President, J. T. McGill, Vanderbilt University; Vice-President, C. B. Lowe, Philadelphia; Secretary-Treasurer, J. O. Schlotterbeck, of Ann Arbor; Chairman of Executive Committee, W. A. Puckner, Chicago; Executive Committee, H. H. Rusby, New York; J. A. Koch, Pittsburg.

The meeting then adjourned.

The National Association of Boards of Pharmacy

Held its fourth annual meeting on Saturday, September 7th, with C. F. Godbold, president, in the chair.

As we did not arrive in time to attend the meeting, we are unable to furnish a report.

Joint Conference of the Boards of Pharmacy and Pharmaceutical Faculties.

This meeting took place on Thursday evening, F. A. Hubbard, of Boston, presiding, and W. A. Puckner, of Chicago, acting as secretary.

One of the first questions that was discussed was "What Shall Be the Educational Requirements for a License to Practice Pharmacy or a License for Apprentice and Assistant Pharmacist?" After considerable discussion, the following motion was adopted:

"Resolved, That it is the sense of this joint conference that the boards of pharmacy shall demand of candidates for a license to practice pharmacy or for a license as apprentice or assistant pharmacist an educational requirement, such requirement to be as high as the power of the board or the educational conditions in the sections over which the boards have jurisdiction will permit."

There was a good deal of discussion in a general way on the training of apprentices and the methods of giving them instruction in pharmacy. In view of the difficulties experienced by candidates who were not college graduates in fitting themselves to pass the examinations of state boards, the following resolution was adopted:

"Resolved, That it is the sense of this joint meeting that the boards of pharmacy should furnish the candidates with information as to how to prepare themselves for such examinations."

There was some discussion afterwards on the courses of instruction given in colleges of pharmacy, in the course of which it was suggested by Prof. Wall that a certain amount of credit might be given to college graduates in the theoretical parts of the examinations of state boards, and a committee was appointed to prepare suggestions for a programme for the next meeting.

The meeting then adjourned.

SECTION ON COMMERCIAL INTERESTS

First Session, September 5, 10:00 A. M.

J. D. Kniseley, of Indian Territory, presided. His opening address made mention of trade conditions, the state of the market, the National Pure Food and Drugs Act, the discriminating rates of the fire insurance companies, and the parcels post. In connection with the latter he spoke as follows:

"The parcels post will be a fight to the finish. We should immediately find out where our Congressman stands on the matter; if he is not with us we should make it our business to see that he is lined up on our side of the question.

"This infamous parcels post bill, if it becomes a law, will do more to kill the legitimate trade of the retail merchants than any law ever enacted in our country.

"Some of the large dailies are backed by corporations and will use their influence to secure the passage of this law. We must get ready for the fight and push a systematic campaign before another Congress convenes, or the enemy will be in the lead."

After some discussion of these topics, the following persons were nominated as officers for the ensuing year, and they were afterwards elected: Chairman, Jacob Diner, New York; Secretary, G. A. Young, Buchanan, W. Va.; associates, A. V. Pease, Nebraska; E. C. Benfield, Ohio, and F. H. Carter, Indiana. The section then adjourned.

Second Session, Thursday Afternoon, 3:00 P. M.

Dr. Thomas F. Riley, of New York, spoke on the subject of introducing National Formulary preparations to physicians.

W. F. Kaemmerer, of Columbus, Ohio, read a paper urging shorter hours for clerks, and closing of part or all of Sunday.

C. A. Mayo presented a report of the Committee on Mutual Fire Insurance.

James L. Cowles, Secretary of the Postal Progress League, was given the privilege of the floor to speak in favor of the passage of an act providing for a parcels post. His views were stoutly opposed by Jacob Diner, of New York, C. S. N. Hallberg and others, after which Caswell A. Mayo presented a series of resolutions against the adoption of the parcels post.

The Committee on Resolutions recommended the appointment of a committee of three whose duty it should be to immediately commence an active campaign against any legislation favoring a parcels post; also recommending that efforts be made to secure an amendment to the Sherman Anti-Trust Act.

There being no further business, the meeting adjourned.

NOTES ON THE RECENT MEETING OF THE AMERICAN PHARMA- CEUTICAL ASSOCIATION

The meeting of the American Pharmaceutical Association, held on September 2-7, was one of the best in the history of this great organization. The arrangements of the local committee could not have been improved upon, the attendance was good, the interest in the various sections and in the business meetings was keen, and the papers presented were fully up to the average, viewed from the standpoint of practical usefulness.

It is difficult to say where the interest was liveliest. The Section on Practical Pharmacy and Dispensing, presided over by Chairman H. A. B. Dunning, was, as usual, attractive to a large, perhaps the largest number, and the papers and talks thereupon brought out many valuable practical points. The Section on Commercial Interests had in like manner its quota of enthusiastic attendance, and the Scientific Section was by no means dull, as some persons are inclined to suppose, but was enlivened by interesting discussions that added to the value of the papers read. At the Section on Pharmaceutical Education and Legislation two strongly opposing views were presented, showing that there are two sides to a question in viewing which some persons seem to be able to see but one.

To say that the various meetings were interesting scarcely expresses the condition: rather, they were intense. No one could attend these sessions without being stimulated and receiving a fresh impetus in the direction of legitimate pharmacy.

The Historical Section is growing every year to be fuller and richer. As a consequence the interest, which was at first confined to a limited number, now proves attractive to all. The histories so far presented have been largely biographies. It is certainly refreshing to go with the his-

torian over the experiences of men like Procter, Ebert, Charles Ellis, J. Milhau, and others, and it is pleasing to think that history in pharmacy is now being made faster than ever. It is for the American Pharmaceutical Association to give direction to this history, and let us hope that it will be as well worthy of the admiration of our successors as are the histories of our predecessors which we are now reading.

The entertainments provided by the pharmacists and druggists of Greater New York were such as could not have been given in a small city. The headquarters were in the magnificent Hotel Astor, all on one floor, where two halls, one of them capable of seating several hundred persons, were set apart for the use of the Association, as well as other rooms for committees, etc. Then there was the beautiful ballroom, in which a large body "tripped the light fantastic toe," and had plenty of room. All of the appointments of that wonderful hostelry contributed to the comfort, convenience, and enjoyment of the Association.

And then the good-fellowship! What a treat to meet old friends and make new ones! To take by the hand some whom we have seemed to know for years but never met, or with whom we have done work by correspondence, but now see face to face! How much better to discuss some of our hard problems *vivâ você* than by letter.

The meeting just closed has served all these purposes. It has been a useful one. It has contributed something to the improvement of pharmacy. Furthermore, it marks an advance in the Association as an organization. It has more members than ever before, the number now exceeding 2,000. A larger number of new members came in last year than in any preceding one. The finances are in a better condition. Between \$1,200 and \$1,500 was added to the endowment fund during the progress of the meeting. These things show a growing interest in the Association, and we believe justify our opening statement that the last meeting was one of the best in its history.

A Few of the Social Features of the A. Ph. A. Meeting

First to be mentioned is the Hotel Astor itself, a luxurious laboratory for the workers of the Association, a delightful resting place for those to whom the Association

meetings are an occasion of recreation. Then came, on the first evening, the reception, dance, and supper. Verily, the first day was full of gladsome greetings in sumptuous surroundings.

The next morning, Tuesday the 3d, while the men were worrying over reports, motions, and amendments, the ladies were enjoying an automobile ride to the Zoological Park and Botanical Gardens, at Bronx Park. After this they were taken to lunch at the Rocking Stone Restaurant, then for another automobile ride, and finally were set down at the Hotel Astor late in the afternoon. At 5 p. m. they were invited to an afternoon tea on the roof garden of the hotel.

On Wednesday morning the ladies were escorted on a shopping tour to as many of the principal stores of New York City as they could "take in," ending with a luncheon at Wanamaker's.

On Wednesday evening a theatre party was arranged for, tickets to Daly's Theatre being furnished to all the delegates. Many of the gentlemen were unable to join this party, being busy in the meeting of the American Conference of Pharmaceutical Faculties, and others at a meeting of the Section on Commercial Interests. For all this, a large party went to the theatre.

The following day (Thursday) an afternoon tea was given to the ladies at the Hotel Astor L'Orangerie, and at 10:30 p. m. the gentlemen sneaked off in parties of three and four from the two meetings then in progress, to go to a "Kommers" at Allaire's on Third Avenue, tendered by the German Apothecaries' Society of New York. This Kommers was a rollicking affair, showing how the Germans can drive dull care away at the close of a long and intense day's work in the pharmacy. Songs, speeches, "salamanders" and fun of all kinds, with a supper at 1 a. m., kept the party wide awake. Some reached home as early as 2 a. m.

Friday, September 6, was largely devoted to recreation. At 2 p. m. the steamer Glen, which had been specially chartered for this occasion, left her dock at the foot of West Forty-fourth Street, North River, carrying some five or six hundred "most grave and reverend seigneurs"—and others—pharmacists, their wives and sweethearts, on a trip to Coney Island, where the attractions of Luna Park and Dreamland were thrown open to them. The weather was good, the

company—what could be better? and the sights on the shores of Manhattan and New Jersey were wondrous to behold. The docks, the big Atlantic steamers, the old Battery, the skyscrapers, the statue of Liberty, and other striking objects were seen to good advantage, and kept the tenderfeet busy taking them all in. Arriving at Coney Island, the company went off in squads and little coteries trying to see as much as they could. Some looked on, staid and sober, as became the dignity of their position, but others entered heartily into the spirit of fun, shooting the chutes, riding the camels and scenic railroad, and taking in all the shows. One venerable professor of noble physical proportions was seen riding the merry-go-round with the small fry of the party, making fun for everybody and enjoying it himself.

At 6:30 dinner was served in Considine's Pier Restaurant to six hundred and three persons, after which all resumed their roamings among the sights of Dreamland, which at night really deserves its name, for the illuminated tower and brilliant electric lights everywhere make the observer rub his eyes and ask, "Is it real or is it a dream."

At 10:45 p. m. the steamer left the wharf on the return trip. Here little groups sat together in the gloaming, some discussing hard problems in pharmaceutical education and ethics, but more going over old times and telling stories, while the younger ones were talking so "sweet and low" that only eavesdroppers could gather the import of their conversation. By midnight the wharf was reached and the day's recreation was brought to a close.

Stray Notes.

The writer was the guest of friends in Brooklyn—Dr. R. G. Eccles and Professor E. W. Runyon, formerly Dean of the California College of Pharmacy, in both of whose families he received the heartiest and most bountiful hospitality. He was also the guest of honor at two lunches at the Lotus Club, given by Prof. Runyon, and one at the Drug and Chemical Club, given by Mr. Caswell A. Mayo, editor of the "American Druggist." These were most pleasantly sandwiched in between pressing hours of business.

Among the busiest of the "kodak fiends" was Professor H. M. Whelpley, whose col-

lection of photographs is a library in itself, and with a few lines of explanatory matter to each picture, would form a history of pharmacy. As he has taken a lively interest in the Historical Section, he may some day make some such use of his picture gallery.

Dr. Otto A. Wall, who was very serious, even severe, at times in championing the case of the poor boy, soon got back to his normal condition, telling a good story or going over old times.

Dr. Oscar Oldberg, who has written so prolifically and cogently on pharmaceutical education, repeatedly forgot to bear his usual solemn look, and broke out into laughter like the rest of us when the ludicrous side of a question was presented.

Thomas F. Main, a busy New Yorker, was there all the time, always, as in years gone by, earnest, smiling and happy. It did us good to see him.

Professors A. B. Stevens and O. A. Schlotterbeck, of Ann Arbor, worthy successors of the beloved Prescott, were both active in the Scientific Section.

A. M. Roehrer, once of San Francisco, now of Washington, held up the dignity of Uncle Sam's Government. He is doing what he can to improve the status of the pharmacists in the army, navy, etc. Help him all you can.

Dr. Wm. C. Alpers, President of the German Apothecaries' Association of New York, is still the orator of the Association. When he talks he hits hard.

J. Uri Lloyd, though less vigorous than Dr. Alpers, is not less eloquent. A poetic strain runs through his serious talks, and before the Association knows it he has carried them into the realms of sentiment.

Dr. H. H. Rusby is doing good work for pharmacy in the inspection of crude drugs imported into New York. Already an improvement has taken place there through the rejection of those of poor quality or fraudulently labeled or invoiced. He is the right man in the right place.

Dr. R. G. Eccles, who has for many years been an honorary member of the California Pharmaceutical Society, was pleased to serve as one of our delegates. Over 20 years ago Dr. Eccles made analyses of a number of poisonous cosmetics, hair preparations, etc., for the "Druggists' Circular," which published them and thereby incurred the ire of some conscienceless proprietors.

Professor J. P. Remington, whose name has been so familiar to pharmacists for a quarter of a century, is still a young man. Remembering the words of the wise man, "there is a time to work and a time to play," he gets as much fun out of life as he can. For the last six years he has been on short rations, but now that the U. S. P. and the U. S. D. are off his hands, let us hope that he will take life a little easier. Good men like him are scarce.

Treasurer S. A. Sheppard is custodian not only of the money of the Association, but of the hearts as well. Probably no member is as well known or as much beloved. Always unselfish, always watching carefully the interests of the A. Ph. A., he has been for 22 years an ideal officer. Enjoying life more than most persons, he is always ready (after business) to contribute his share to the amusement of a party of innocent merrymakers.

Professor E. W. Runyon is jolly, quick, energetic as ever, a royal entertainer, who attends to every detail that can contribute to the comfort of his guests. With a strong attachment for his old home, San Francisco, he still is enthusiastic for New York as the place to do things. Like Whelpley, he is an expert with the kodac, and preserves mementoes of his travels by catching the shadows ere they pass.

The American Pharmaceutical Association now has 2,200 members, less than 100 of them being in California.

When the hour came for final adjournment, on Saturday, the 7th, the party was about worn out, the men chiefly by talk and work, and the ladies by functions and sightseeing.

There are now nine local branches of the American Pharmaceutical Association. When will San Francisco, Los Angeles, Portland, and Seattle have branches?

In the report of the Committee on Membership, of which W. B. Day was chairman, it was stated that several colleges were giving a year's membership as a prize for certain students. We have six schools on the Coast. Why should not all offer this prize?

The chicanery of those manufacturers who have advertised their serial number as a government guarantee was severely denounced by the A. Ph. A.

AMERICAN PHARMACEUTICAL ASSOCIATION

President's Address to the Fifty-fifth Annual Meeting, New York,
September 2, 1907

By Leo Eliel.

Fellow Members of the American Pharmaceutical Association—Ladies and Gentlemen: We are meeting here in this city for the first time after a lapse of forty years. What mighty changes have been wrought in this, the metropolis of the Western Hemisphere, during these four decades; and the changes, progress, and development, so apparent here, is typical of like progress of the entire country. Never in the history of civilization has there been such rapid advance and development in the arts and sciences as during these four decades. Chemistry and pharmacy have kept fully apace with all other lines of human activity.

Inasmuch as the chairmen of the various sections cover in their addresses such events of interest as have come up during the past year in their respective branches, I shall not take up your time with such reference.

Forty Years Ago.

However, it will not be amiss at this time to recall some of the interesting things and events of that meeting, forty years ago. In looking over the Proceedings for that year, I was very much impressed with the "Report of the Committee on the Progress of Pharmacy," also with the fact that this report was signed **C. Lewis Diehl**, Chairman. And this work has been, with exception of one short intermission, in the same hands. It is to be hoped that it will continue so for many years to come.

The report of the Committee on Drug Market was highly interesting, and evoked a long and spirited discussion, bringing out many valuable points. Those taking part in the discussion were: Dr. E. R. Squibb, of Brooklyn; Samuel M. Colcord, of Boston; Prof. Parrish, of Philadelphia; Mr. Milhau, of New York; Mr. Tufts, of Dover, N. H.; Prof. Maisch, of Philadelphia; Prof. Markoe, of Boston; Mr. Ellis, of Philadelphia; Mr. Close, of Brooklyn, and Dr. Pile, of Philadelphia. Among the many things brought out by this discussion it may be of interest to mention that a large quantity of drugs and chemicals, which had been

seized during "blockade running" time in that little unpleasantness which some of you may remember, were sold at auction, without having gone through the formality of an inspection. Most of these were found to be grossly adulterated and others spurious. As, for instance, quinine sulphate, labeled as such, proved to be mannite. Adulterations of cream tartar, oils winter-green, cinnamon, lemon, etc., were also discussed. Matters pertaining to the internal revenue were also brought up, especially the excessive tax on alcohol, showing the little progress made in this particular item, which is of such great importance to the chemical and pharmaceutical interests of this country.

In President Milhaus' address in 1868, he recommends a standing Committee on Unofficial Formulas to prepare a report for publication soon after appearance of the new Pharmacopœia. He qualified this by stating that this would insure uniformity in prescribing, and that it would act as a practical check to a certain species of covert quackery on the part of "Manufacturing Pharmacists" inadvertently countenanced by physicians.

The Membership.

I am pleased to note the marked increase in our membership, showing an awakening and increased interest in the work of the Association. This may be attributed to the establishment of the Branch Associations in the centers of population, also to the Bulletin of the A. Ph. A. The Branches, through their work educating the druggists and pharmacists as to the value of affiliation with the Association, and the Bulletin, through its forceful and able editorials, as well as its careful and selected presentation of matters of general interest, has done much to awaken interest in and keep the members in touch with the work of the Association. In this connection, credit must also be given the National Association of Retail Druggists for organizing the retail trade, educating the druggists in the value of united efforts, placing them in a better position financially, and thus stimulating them to join this, the parent Association. Now that the atmosphere has been cleared, their program of education and propaganda in the various commercial phases, also in connection with the U. S. P. and N. F., will undoubtedly continue to add to our membership in the future.

The report of our worthy Treasurer will also show a very gratifying condition in the financial affairs of the Association. This is due to our large increase in membership and to the handsome sum realized from the sale of National Formulary, thus emphasizing the wisdom of retaining control of this valuable property.

Federal Legislation

Without a doubt, the most important event of the past year was the enactment of the Pure Food and Drugs Act. For the first time since the establishment of this government has there been a law put on the national statutes which undertakes to control the truthful branding of foods and medicinal products, at least so far as their contents of certain substances are concerned. This act is so far-reaching that it will not be possible at this time to venture a prediction as to final results.

One of the most beneficial and immediate results of the enforcement of the act, will be a recrudescence of that commercial honesty and integrity, which is so necessary to establish that perfect faith in all commercial transactions.

As a natural sequence of this act, there should be organized a National Department of Health.

One of the fundamental principles of all civilized countries should be the preservation and care of the public health. The proposition is so obvious that it needs no argument. Surely it should be considered as important, and more so, as matters pertaining to Commerce and Labor. A strong effort is now being made by the American Medical Association for the establishment of a National Department of Health. At a meeting of a special committee of the American Medical Association to aid in the establishment of this department, held in Washington, D. C., December 13-15, 1906, there were also representatives from the American Association for the Advancement of Sciences, from the various departments connected with the United States Government, various state and local health departments, the various medical and hygienic institutions and associations, physicians and hygienists, sociologists, settlements, charity organizations, civil service reformers, Volunteers of America, educational institutions, American Peace Association, etc., one sanitary chemist and two other chem-

ists. The pharmacist was not in evidence. This Association should re-emphasize its position, as being in favor of such a department, and should appoint a committee to join the American Medical Association to aid in obtaining the necessary legislation. We should go still farther and demand representation in this department, since ours is the first National Association to concern itself about public health. **Protest against the importation of adulterated drugs and medicine was the immediate cause for the organization of the American Pharmaceutical Association here in this city (New York) in 1851, and its investigation and reform was the most important work during the first decade of its existence.**

State boards of health, as at present constituted, do not, in most States at least, present the ideal conditions that should prevail in bodies of this character. There should be at least one pharmacist, one dental and one veterinary surgeon on each and every one of these boards. State institutions, such as our insane asylums, should have registered pharmacists in charge of their dispensaries. I recommend that proper steps be taken to obtain necessary legislation to bring about such improved conditions in States where such do not now exist.

Reformation in Medicines.

The enactment of the Pure Food and Drugs Act must be considered only as a first step in that evolution which is now in progress, an evolution which means so much to us all. It is a step in the right direction, and in its final analysis spells "Tell the Truth." I believe it is due and entirely proper, even at this late hour, to give grateful acknowledgment of the valuable and effective work of "Collier's Weekly" and "The Ladies' Home Journal," in exposing the fraudulent and, in many cases, dangerous character of proprietary articles on the market. The value of these efforts in arousing public sentiment, and thus aiding in placing the act on the national statutes, cannot be overestimated.

Inasmuch as many proprietors of secret remedies are misleading the public as to the object and meaning of the Government guarantee and serial number, I would suggest that this Association put itself on record in condemnation of this practice. We should use our best efforts to have the

manufacture and sale of secret proprietary medicines conducted under the same rules and conditions as obtain in European countries.

I further recommend that the postal authorities be urged to exclude from the mails all newspapers, circulars, periodicals and other matter used in advertising the various remedies for sexual weakness and lost manhood. Also the so-called female remedies, or regulators. The circulars and other matter sent out by the promoters of the first-mentioned class of remedies are filling our insane asylums. If remedies of the second-named class perform what may be read between the lines, they are criminal, and if they don't, they are frauds. In either case, the Government should suppress their sale.

So long as our reputable newspapers, journals, magazines, etc., will accept advertising matter from the promoters and proprietors of nostrums, which claim to cure all the ills that human flesh is heir to, the demand for them will continue. Knowing the falsity of the claims made by these nostrum venders, is it not our plain duty in every way to discourage their sale and use? Should we not use every effort to obtain national legislation along the same lines as govern the sale of this class of goods in European countries? One of the fundamental principles of this Association is the suppression of quackery, and where could it find a better field for action? Unless we take a decided stand in this matter, it will be found difficult to bring about and permanently retain those closer relations with the medical profession which are so desirable. In the propaganda now being conducted for those better relations, clean hands and a clear conscience on that score will be of great help.

Elevation of Our Status.

Among the problems confronting the medical profession, some also appeal to us, as, for example, the question: What can be done to educate the public along proper lines of hygiene and sanitation, and especially correction of the false notions concerning medicine and particularly the position of the retail pharmacist.

While the reporter to the public press is designed to work in this direction, it is evident that some more far-reaching scheme is required to offset the derogatory effect of the efforts of inimical interests, and to

re-establish and maintain the professional status and business integrity of the retail pharmacist.

There are several medical journals having a large circulation among a certain class of doctors, which are chiefly devoted to exploiting the doctors in the interest of certain proprietary medicines. In some instances, the publisher and owner of the journal is the manufacturer of the medicines, who thus obtains an advantage over his competitors not contemplated by the postal laws. Since some of these journals are constantly working against the interests of true pharmacy by recommending doctors to dispense their own medicines, etc., I suggest that this subject be referred to the Postoffice Department for inquiry.

The Food and Drugs Act.

Your attention is called to the editorial comment appearing in the Bulletin of the A. Ph. A. for February. The matter so clearly set forth by its editor should be referred to the Committee on Legislation, with instruction to try to obtain changes in the act, so that when an article is labeled with a U. S. P. or N. F. title, it must comply with their standards of purity and strength. The present interpretation of this clause in the act is clearly wrong and we should not permit it to stand.

It is possible that some distinction should be made between the U. S. P. and the N. F. The two works are quite dissimilar, in that the N. F. does not "lay down any tests" as referred to in the act. While both works contain pharmaceutical preparations, the more ephemeral and complex of these in the N. F. should perhaps not be subject to as rigid interpretation as are the articles of the U. S. P. The question of solvents, menstrua, color, and flavor might be given some latitude if so stated on the label. But in the medicinal strength of the preparations it is firmly believed no variation should be permitted, any more than any greater latitude should be given chemicals than afforded by the standards of the U. S. P. and the purity rubric.

Nearly every State in the Union has strict laws governing the sale of narcotic drugs and cocaine. These laws are being generally observed by the retail drug trade, yet from all statistical and other information obtainable, there has been no reduction in quantities imported or manufactured in this country, nor in its consumption. Nor

is there likely to be, until the distribution by importers, manufacturers, manufacturing pharmacists, jobbers, etc., is controlled in such a manner that goods of this character may be traced to the consumer. Physicians should not be permitted to dispense habit-forming drugs, but should be compelled to prescribe for each individual case, same to be dispensed by a registered pharmacist. A majority of the victims of drug habits may be laid at the door of a certain class of physicians. The laws, as they are now, only cover the retail drug trade; **there is no restrictive legislation so far as the importer, manufacturer, jobber or physician is concerned**, excepting that by special provision they are always exempted from such restriction. It is desirable to check the indiscriminate use of drugs of this class, and I would suggest that the Committee on Legislation and Education take this matter up for serious consideration and report as to best methods for obtaining the necessary legislation.

Board Examinations.

There are in the United States, approximately, taking population into consideration, eight pharmacies and drug stores to one in continental European countries. Despite this fact, there are those who deprecate the commercialization of the drug business, and the fact that in a majority of these stores the practice of pharmacy has become a secondary feature. This enormous overcrowding is due in part to laxity in our laws, not being strict enough in educational and other requirements, also in methods of examinations in vogue by most of the boards of pharmacy. Under present laws, in most States, examinations are limited to three days. This is entirely inadequate to determine what a candidate can "do." The ordinary methods of examination fall short in determining a candidate's competency. Questions, even with ample time at the disposal of a board, and the wide range from which they may be selected, are, after all, but a very imperfect test of real knowledge. The present system of examination, making 75 per cent or more consist of written questions, is entirely wrong. A recent graduate, or one who has "crammed" from one of the many "quiz compends," or from a cram school, of which there are many in this country, could pass such an examination, but what could he "do?" This can not be determined in the short time allotted

for such examination. Five days, at least, should be given for the examination and the practical demonstration of the candidates' ability. Of this, at least 75 per cent should consist of laboratory and prescription work. The laboratory work should consist of assay processes, the preparation and standardization of test solutions, also to the application of tests to determine the purity of the various articles submitted. The prescription work should be of a character to test the knowledge as well as the skill. This would make the grade of registered pharmacists much more difficult to reach, but if we ever expect to elevate the practice of pharmacy to a proper professional standard, we will have to proceed along these lines. If the pharmacist hopes to maintain his professional status, and we assume that this is his desire, he must put himself on a level with his co-laborer and oftentimes chief competitor, the physician; higher standards and more rigid examinations are required. I, therefore, urge that this Association put itself on record at this time as being in favor of a higher educational standard and more rigid and extended examinations by the boards of pharmacy. Also that this Association use its best efforts with the different State legislatures to that effect.

Recommendations.

I recommend that manufacturers of such articles as aqua ammonia, acetic, nitric, and other acids be urged to abandon their archaic methods of branding, and to adopt modern methods for stating percentage contents. F., FF., FFF., FFFF., etc., may have conveyed a definite idea as to strength fifty years ago, but today is entirely without meaning. Branding by degrees Beaumé is also unsatisfactory, as this requires conversion to ascertain the strength.

We should offer due notice, and after a specified time refuse to accept such goods unless properly labeled.

A great source of annoyance and financial loss to the pharmacist is due to the multiplication of similar preparations by manufacturing houses, under different titles; otherwise reputable houses should refrain from such practice.

This Association should enter protest against further abuse of this character.

I recommend that all motions for appropriations passing through the Council for sums in excess of \$250 be held by members

of the Council for seven days before transmitting their vote.

The date for meeting of this Association should be fixed by the new Council, prior to adjournment of each annual meeting.

The present financial status of the Bulletin of the A. Ph. A. is far from satisfactory. Its value as a means of information, keeping up an interest in the work of the Association, its aid in adding to our membership, cannot be overestimated.

I would, therefore, suggest that the annual budget be charged with a sufficient sum to carry it for the entire fiscal year. This would obviate the need of the necessarily slow process of voting by mail, which at times may give rise to vexatious delays.

The agitation on the part of some of the pharmaceutical press regarding revision of the U. S. P., under the supervision of the National Government, I assume, will neither be pleasing nor appeal to a majority of those who have performed these labors in the past. Nor would a proposition of this kind be pleasing to the many others who are directly interested in the future welfare of this important standard.

Foreign pharmacopœias, so revised, cannot be compared in any respect with the U. S. P. The conditions under which the U. S. P. is revised are the best for this country. The Government has now representation in the Pharmacopœial Convention through its various medical and drug departments in its different branches of service. This might be enlarged upon by the Convention electing one of the Government delegates as a member of the Revision Committee. But it is clearly in the interest of all concerned to retain control of the Pharmacopœia under present conditions.

The Loss of Ebert.

The past year, which has brought so many changes in connection with matters of pharmaceutical interest, has also brought great sorrow and grief to our ranks. Stricken down in the period of his greatest usefulness, with his faculties unimpaired, with apparently many years of useful service before him in the cause to which he had devoted his life, the announcement of the sudden illness and death of the late lamented Albert E. Ebert, came as a distressing shock to the members of this Association, such as it had never before experienced. His taking away is an irreparable

loss to pharmacy, and leaves a decided vacancy in our ranks.

Those who knew him and were near to him also knew his kind and self-sacrificing disposition, his willingness to subordinate his own material interests for those of others, recognized the underlying motive in all his actions, namely, to better pharmaceutical conditions in this country. His keen perception and analytical mind, especially in counsel, made him a safe guide in all things pertaining to the welfare of this Association and the profession of pharmacy in general. He will long be missed.

This Association and the pharmacists of America owe a debt of undying gratitude to his memory. His last words were: "The American Pharmaceutical Association. It was my life. It gave me a profession." The Bulletin of the A. Ph. A. of December, '06, published his likeness and obituary. I recommend that they be incorporated in the next proceedings.

In conclusion, I wish to state that the suggestions and recommendations presented are in a great measure the result of my personal observation and deductions, as they appealed to me from the standpoint of the pharmacist in actual practice. I deem these of vital importance and ask your careful consideration of the suggestions. It was my desire to present this in a direct and clear manner so there could not be any misunderstanding as to their meaning. It is my firm belief that the future is full of promise to pharmacy in this country; that the enactment of the Pure Food and Drugs Act is the silver lining now plainly visible on the dark clouds which have hovered over us these many years. That a new era is about to dawn. That it is for us to so guide and smooth the hard and hilly roads that lead to success that we may again regain and hold that professional recognition which is our due.

A prominent Montana newspaper man was making the round of the insane asylums of that State in an official capacity as an inspector. One of the inmates mistook him for a recent arrival.

"What made you go crazy?"

"I was trying to make money out of the newspaper business," replied the editor, to humor the demented one.

"You're not crazy; you're just a plain fool," was the lunatic's comment.—Christian Advocate.

PHARMACIST VERSUS DRUGGIST**Pharmacy, as a Profession; Pharmacy, as a Business**

By Fred I. Lackenbach

Originally, the term "druggist" was applied to the drug merchant—one who dealt in drugs, and the pharmacist or apothecary, one who prepared, compounded and dispensed medicines. But owing to the rapid development of the commercial spirit in the field of pharmacy, the public generally has come to accept the terms as synonymous, regarding "pharmacist" as little more than a refinement over the commonplace "druggist."

To such an extent has the drug business encroached upon the domain of pharmacy, and so much energy expended in amalgamating the conflicting elements in the two callings, that pharmacy as an art and pharmacy as a profession are phrases almost unknown outside the class-room. Even the pharmacist's most sacred stronghold—the college—has had to descend from its lofty estate and add to the curriculum "commercial pharmacy."

Only last month, a pharmacist in Missouri, up before the State pharmaceutical association, urged that colleges of pharmacy should devote "nearly as much attention to business as to science," and his views were received with such acclaim, that a chair of commercial pharmacy was at once established in the St. Louis college, and the speaker appointed its head.

Another indication of the commercial spirit invading the stronghold of pharmacy, is our own State pharmacy law, which counts the time spent in college as equivalent to no more than so much "store" experience.

So much for the tendency of the

times! I come before you as an ardent advocate of pure, unblemished pharmacy on the one hand, and as an exponent of up-to-date progressive business methods applied to the retail drug business, on the other. In other words, I would divert the onrushing current of assimilation into diverse channels, divorcing as completely as possible the profession of pharmacy from the business of selling drugs. As a means of accomplishing this, I would focus the activities of the pharmacist on the college, the pharmaceutical society, the pharmaceutical laboratory, and, what is more directly to the point, the National Pure Food and Drugs Act. These various subjects I will take up in their turn.

The pharmacist's calling today is about as choice a bundle of inconsistencies as it is possible to gather under one roof. From the apprenticeship upward, the aspirant for pharmaceutical honors is confronted with a bewildering series of incongruities. He is placed at sweeping floors, washing bottles and cleaning cuspidors; after a while he doles out soda-water and dispenses toothpicks, and, when he shows an aptitude, he is allowed to put up packages and make citrate of magnesia. After he has made some progress along these lines, it is time he is "registered," and as the examination is pretty stiff, and he hasn't done much studying, a course in pharmacy is about the proper thing, and, besides, a sheepskin is rather a nice thing to have, so off to college he goes. He is given instruction in chemistry, pharmacy, botany, materia medica, physi-

ology, microscopy, pharmacognosy, toxicology, jurisprudence, Latin, and bacteriology. It's a big dose, but he's got to get through that State Board, and he crams in as much as he can. He passes the Ex. and hikes back to the drug counter, and proceeds to forget the ugly dose.

Another fellow has big notions about the honorable pharmacists' calling; he studied chemistry at high school and he likes it, so he strikes right out for college. He studies about a lot of things he can't understand, gets a pretty good idea of the science of pharmacy, is held over for the State Board, and strikes out for a job. He is about as helpless in the druggist's shop as a new-born babe, and his high-fangled notions soon leave him practically where the other fellow started in.

That's the experience of the majority of the pharmacists! College diplomas, at first the pride of the possessor, are thrust up on the gallery, often out of sight; the Ph. G. is out of date and an affectation anyhow, and the State Board certificate "is the real thing."

And some of them never recover from the shock. They grind along, day after day, in their little four-cornered worlds, bound down with an infinitude of petty duties; social hermits and civic nonentities, decrying the department store and vilifying the "cutter."

Others take right hold and make the best of things. It's a straight, out-and-out business proposition, they argue, and if you don't get in and hustle, you're up against it. These fellows are the most alive thing in pharmacy today. They conduct their stores on business principles; they separate "church from state," and strike out for business, using the same methods that are trade-winners in other lines. They place their laboratories in charge of

well-trained, qualified pharmacists, and employ salesmen to sell goods. That's the line along which progress in pharmacy lies! When the pharmacist wakes up to this realization, and raises his eyes toward the far east, he will see his guiding star beckoning him in the shape of the National Pure Food and Drugs Act. That act is fraught with more potential possibilities for the future of pharmacy than anything that has happened since the Pharmacopœia became the official standard.

Men must be trained for the enforcement of that law, and it falls to the colleges of pharmacy to train them. In the course of this training both entrance requirements and course of tuition will have to be increased. At least a high school certificate and a three years' college course should be a prerequisite to the degree pharmaceutical chemist. One year additional post-graduate work should be necessary to come up to the requirements of the government examining body of the pure food and drugs commission. This government examination (equivalent to four years' college instruction) should grant upon successful candidates a commission making them eligible to food and drug inspectorships; qualifying them to appointment as pharmacists in the army, navy or marine hospital service, and establishing a standard that would pass, unchallenged, State boards and similar bodies throughout the United States and insular possessions.

Every earnest pharmacist should join his State pharmaceutical society, and extend its influence with all possible vigor; it is along this line that the cause of pharmacy will be advanced. The time will come when the society will stand uncompromisingly for the scientifically trained pharmacist; it will have the naming of the State ex-

aming body, and will be a powerful factor in the furtherance of proper legislation.

The laboratory is an adjunct to every drug store, but very few indeed are the laboratories equipped to perform the simplest U. S. P. tests.

It is to be hoped that the enforcement of the Pure Food and Drugs Act will enforce establishment of properly equipped pharmaceutical laboratories, as adjuncts to drug stores and as independent concerns. This will necessitate the enrollment of men capable of analytic and assay work, which men are, of necessity, college trained.

Since manufacturers are obliged to guarantee their products under registered serial numbers, I would likewise oblige the druggist to guarantee his product, but, instead of attaching a serial number or the firm name, the **dispensing pharmacist** should attach his own signature to the label of each and every article coming within the range of the Pure Food and Drugs Act, this guarantee making him individually responsible and amenable to the law.

BERKELEY WILL HAVE A PURE FOOD STATION

Prof. Jaffa of State University Is Appointed Director of Laboratory

Prof. Meyer E. Jaffa has been appointed director of the Food Laboratory of the California State Board of Health.

The position carries with it a salary of \$3,000 per year, besides honors and emoluments. The appointment of Prof. Jaffa by the State Board of Health marks the beginning of the enforcement of the State pure food laws passed by the last Legislature. Prof. Jaffa will have his laboratories for the present at the agricultural

building on the campus and will be an honorary professor in the University.

The well equipped laboratories of the State University will be used for the present by Jaffa and his corps of assistants whom he will appoint shortly, until a building for the exclusive use of the State experts can be built.

The honor accorded Jaffa is a signal one and he has been the recipient of congratulations from his fellow workers in the college of agriculture. Jaffa is regarded by experts in chemistry on the Coast as one of the brightest men in that line in the Pacific States. He was graduated from the University with the class of 1877 and has been a faculty member of the institution for the past ten years. He is an authority on all matters relating to foods and foodstuffs and he will be a valuable aid for the State in the prosecution of violators of the State pure food law.

Jaffa has for a number of years been engaged by the government writing on various topics relating to foods. One of his latest works which will be shortly seen in print is "Nuts as Food."

The laboratory was located at Berkeley by the State Board of Health. Dr. Jaffa will have one, or possibly two assistants, at a salary of \$1,500 a year. As the Pure Food Act, under which the laboratory was established, does not take effect until January 1, 1908, Professor Jaffa will probably not appoint his assistants immediately.

Prof. Jaffa is an eminent agricultural chemist. He has been at the head of the Agricultural Experiment Department of the University of California for several years; is a past president of the National Association of Agricultural Chemists, and ranks well up among the leaders of his profession in the United States. Mr. Jaffa will occupy the same position in the enforcement of the State pure food law

as does Dr. Wiley in the enforcement of the national law. He is not a politician and those in authority assert that he will prosecute the work in California with energy and fairness.

Work will begin at once on the construction of a \$20,000 food laboratory and the entire system of the enforcement of the law will be ready for immediate operations January 1.

A TRADE AND A PROFESSION

"Trade is occupation for a livelihood; profession is occupation for the service of the world. Trade is occupation for joy in the result; profession is occupation for joy in the process. Trade is occupation where anybody may enter; profession is occupation where only those who are prepared may enter. Trade is occupation taken up temporarily, until something better offers; profession is occupation with which one is identified for life. Trade makes one the rival of every other trade; profession makes one the co-operator with all his colleagues. Trade knows only the ethics of success; profession is bound by the ties of sacred honor."

President Faunce of Brown University, in the "Medical World," is credited with the above differential diagnosis. To which class do you belong?

Sir William Henry Perkin Dead

This well known chemist died July 14, in London, at the age of sixty-nine years. He was the founder of the coal tar color industry. It will be recalled that Sir William visited this country

John H. Brown
He used to drink,
But now he drinks no more,
For what he thought was H₂O
Proved H₂SO₄.

—Nathan Winter, Ph. G.

Texas Has a State Board of Pharmacy

The several district boards have been legislated out of existence. Texas has a State pharmacy law, which went into effect on July 1, 1907.

At the meeting of the Texas State Pharmaceutical Association, held recently, over 300 persons were present. It was voted that the Association pay the expenses of their delegates to the A. Ph. A. from year to year.

Also that the Association continue to provide a scholarship in the Department of Pharmacy at Galveston for some worthy young man.

The following resolution was also adopted:

That it shall be the duty of the executive committee to present to the association, not later than the afternoon of the second day of the annual meetings every two years hereafter, beginning with 1909, the names of fifteen members of this association who are registered pharmacists in Texas, whom they believe to be qualified and competent to be recommended to the Governor as worthy of his appointment on the State Board of Pharmacy. The names submitted to be read by the secretary and voted upon by ballot, and the ten names receiving the highest number of ballots shall be recommended for appointment by the Governor.

Provided, further, That any member of the association shall have the right to nominate any member other than those proposed by the executive committee. The members receiving a majority of the votes cast shall be recommended to the Governor for appointment on the Texas State Board of Pharmacy.

We should like to see the same action taken by the California Pharmaceutical Society. Furthermore, we believe the pharmacy law should contain a proviso compelling the Governor to select a majority of the Board out of the names thus presented to him. This would go a long way to remove these appointments from the sphere of politics.

MEDICINAL AND POISONOUS PLANTS OF CALIFORNIA*

By Albert Schneider, Ph. D.

Professor Economic Pharmaceutical Botany, Histology and Bacteriology in the California College of Pharmacy.

34. *Agathis australis* Steud. Kauri gum pine. Australian or New Zealand pine. Dammara. Coniferæ.

An ornamental tree, native of Australia and New Zealand, recently extensively introduced into California where it does well. The gum (dammar resin) exudes from the roots in New Zealand and the old gum is dug out of the ground. This gum is highly prized in the arts. On distillation it yields a terpene oil. A collodion-like preparation (Baumé Caldonien) is made by dissolving an equal weight of the gum in 90% alcohol. It is said to be very useful in the treatment of wounds, ulcers, eczema and other skin affections, forming an excellent substitute for collodion. (Proc. A. Ph. A. 31:95, 1883.)

35. *Agave* species. Agaves. Century plants. Amaryllidaceæ.

Century plants in great variety and abundance are found in nearly all parts of the State of California, especially in the southern part, and nearer the coast. Thrive in sandy dry soil.

36. *Agave americana* L. American agave. Aloe. Amaryllidaceæ.

Leaves are used medicinally. Yields pulque. The fiber is used in cordage making.

37. *Agave deserti* Engelm. Agave. Cactus. Amaryllidaceæ.

A small plant, native of southern California. Most highly valued by desert Indians, all parts of the plant being used. Fresh shoots or young plants are roasted and eaten, likewise the flowers. Nets, mats, etc., are woven out of the fiber. It yields pulque and "vino mescal." (D. P. Barrows, Land of Sunshine, 13:v. 314, 1900.) (Bailey, Cyclo. Am. Hort, 34.)

38. *Agave palmeri* Engelm. Amole. Mescal. Amaryllidaceæ.

Used as food, for the fiber, and in preparing mescal, the national drink of the native Mexicans. Rich in mucilage and grape sugar (citro-glucoside). Other species, as *A. parryi* and *A. shawii* are similarly used. (U. S. Geo. Survey, Wheeler's Report, Bot. 6:52.)

39. *Agave utahensis* Engelm. Mescal. Amaryllidaceæ.

The fruit is baked in pits and eaten. (See Death Valley Report, by Coville.)

40. *Agave virginiana* L. Rattlesnake master. Amaryllidaceæ.

The roots, which are very bitter, are used in the treatment of colic, in the form of a tincture. Also as an antidote for snake-bite.

41. *Aglaia odorata*.

A native of Cochin-China, cultivated in southern California. The flowers are very fragrant and employed in the manufacture of perfumery and sachet powders. In China the flowers are used to scent certain teas.

42. *Agrimonia gyrosepala* Wallr. Common agrimony. Rosaceæ.

This introduced species is closely related to the well-known medicinal *A. eupatoria* L. of which both the herb and root are used. An oil is distilled from it. A decoction of the flowers is useful as a gargle, and has some value as a vermifuge. It contains tannin.

The California species require further careful study as to medicinal properties.

43. *Agropyron repens* Beauv. Dog-grass. Couch grass. Quitch grass. Gramineæ.

This grass has escaped from cultivation and thrives well in all parts of the State. It is well-known medi-

* Continued from July.

nally. The rhizomes and roots are used in irritable bladder, kidney diseases, gout, fevers, as a blood purifier, etc. Freely used in the form of a drink. Very easily* cultivated. The drug is, however, cheap and the market uncertain. (U. S. Disp., 1411.)

44. *Agrostemma githago* L. Corn cockle. Alsinaceæ.

A very noxious European weed, introduced into the grain fields of the United States. Many cases of poisoning of human beings and of numerous heads of cattle have been traced to the flour made from wheat grown in cockle infested fields and the fodder from such fields.

The physiological action and possible therapeutic value of this plant require further careful investigation. The active constituent is a freely soluble, noncrystallizable substance known as saponin, having a sharp burning taste; when inhaled in the smallest quantity it produces violent sneezing.

45. *Ailanthus glandulosa* Desf. Tree of heaven. Simarubaceæ.

A native of China, introduced and cultivated in various countries. Bark has cathartic properties due to an oleoresin. Used as a vermifuge for dogs. Very disagreeable to take. *A. excelsa* resembles it closely and has similar properties. (Proc. A. Ph. A. 30:214, 1882.) (Proc. A. Ph. A. 25:181, 1877.)

46. *Alectoria fremontii* Tuck. Hair moss. Lichenes.

Used as food by Indians. Reported to have sedative properties. Used in hair tonics. The long, nearly black tufts resemble ladies' tresses. Has no medicinal value.

47. *Aleurites cordata*. Euphorbiaceæ.

A native of southern China, culti-

vated in southern California. Said to yield the finest lac varnish.

48. *Aleurites moluccana*. Candle-nut tree. Euphorbiaceæ.

This tree is cultivated in southern California. It is a native of the Molucca Islands. The nuts are eaten and yield a valuable oil (the so-called "Kekune oil").

49. *Alliaria* (*Sissymbrium*) *officinalis* L. Hedge garlic. Cruciferae.

An introduced European plant. The herb and seeds are highly valued as a diuretic, diaphoretic and expectorant and for external application in gangrenous affections and to promote the healing of cuts, bruises and ulcers. (U. S. Disp. 1557.)

50. *Allium bolanderi* Wats. Wild onion. Liliaceæ.

Bulbs used as food by Indians. Has diuretic properties.

51. *Allium falcifolium* H. & A. Wild onion. Liliaceæ.

This species is especially valued as an article of diet by the Indians. Apparently not used medicinally, although it has marked diuretic properties.

52. *Allium unifolium* Kell. Wild onion. Liliaceæ.

Believed to be poisonous. The bulbs and leaves are fried and eaten by Indians.

Other species of wild onion found in the State are *A. breweri*, *A. lacunosum*, *A. serratum* and *A. attenuifolium*. All have the properties common to onions generally. Some are reported to be poisonous.

53. *Alnus species*. Alders. Betulaceæ.

Alders are common. The bark is used for tanning and dyeing, and the charcoal is usually employed in the manufacture of gunpowder. The bark, twigs and buds of *A. oregana* (Oregon alder) are used as a tonic in tea, beer and other drinks. A bark

* Please don't! It is the worst pest farmers in Lincolnshire, England, have to contend with. We don't want it in California. Once in the ground, it is almost impossible to eradicate it.—Ed.

ointment is used to cure eruptive skin diseases, cuts, sores, ulcers, etc. (Calif. Geo. Survey, Bot. 2:80.) (Kellogg Trans. Calif. Hort. Soc., page 163, 1865.)

54. *Alnus incana*. Tag alder. Betulaceæ.

Rich in tannin. Useful as a hæmostatic. Used in tanning.

55. *Alnus rhombifolia* Nutt. Mountain alder. Betulaceæ.

Bark very astringent and somewhat bitter and contains a peculiar dye-stuff. Indians use a decoction of the fresh or dried bark to induce perspiration, to check diarrhoea, to allay stomach-ache, to facilitate child-birth, to check hemorrhages in consumption, etc. Mixed with Indian tobacco, it is given to induce vomiting. (Contrib. U. S. Natl. Herb, 7:III, 332.) (Calif. Geo. Survey, Bot. 2:80.)

56. *Aloe* species. Aloes. Liliaceæ.

Many species and varieties are cultivated as ornamental plants. They resemble the century plants (agaves), and thrive well in dry sandy soil. Whether they could be grown profitably for the inspissated juice, which is used medicinally, would have to be determined experimentally. The dried juice is worth about 20 cents per pound.

57. *Aloe perryi* Baker. Socotrine aloes. Liliaceæ.

The inspissated juice of this plant constitutes the Socotrine aloes, which is a very useful laxative. No attempt has been made to grow it commercially in the State. *Aloe vera* (vulgaris) L. yields the Barbadoes aloes, which is also a very useful laxative.

58. *Althæa* species. Mallows. Hollyhocks, Malvaceæ.

Native and introduced species occur in great profusion, some constituting very troublesome weeds. Much used as demulcents, as poultices, in the manufacture of lozenges, confections,

etc., as a cough remedy, etc. *A. officinalis* and *A. rosea* are the two most important species. The roots of the former species are supposed to contain asparagin. (Proc. A. Ph. A., 30:217, 1882.)

59. *Alyssum maritimum* L. Sweet alyssum. Cruciferae.

A fragrant ornamental plant used in sachet powders. Sparingly naturalized, frequently cultivated. A familiar old-time plant. Once used to cure hydrophobia, hiccough, etc.

60. *Amanita muscaria* Fr. Amanita. Fly Agaric. Toadstool. Agaricaceæ. (Fungi.)

The best-known of the poisonous fungi. Abundant in various localities of the United States. In Europe it has been used as a fly poison for hundreds of years. In Asia it has long been used as an intoxicant, producing symptoms not unlike those of Indian hemp.

This fungus contains several toxic compounds, the best known of which is muscarin. Many people are killed each year through the eating of toadstools. Cattle are poisoned accidentally. The symptoms of poisoning do not develop at once, usually twelve to fourteen hours elapse before the initial attack. There is no antidote, and treatment, which is entirely symptomatic, is, as a rule, of little avail. Transfusion of normal salt solution may be tried.

Since the eating of toadstools indicates a perverted taste, rather than otherwise, and since these plants have practically no food value, it is most urgently advised not eat them under any circumstances, thus many a life may be saved.

61. *Amanita phalloides* Fr. Death cup. Poison amanita. Agaricaceæ. (Fungi.)

The most poisonous of all fungi found in California, parts of the Eastern and Middle States, and is said to

be especially abundant in the vicinity of Washington, D. C. This is the fungus which caused the death of Count de Vecchi, on November 10, 1897 (at Washington).

The active constituent phallin has been carefully investigated by Kobert. It resembles the white of egg (toalbumen). Salt water dissolves it readily, Boiling is said to decompose it, and to render it inert. It has the general toxic properties of muscarin.

62. *Amanita verna* Bul. Vernal amanita. Agaricaceæ.

Very poisonous. By some authorities believed to be identical with *A. muscaria*.

63. *Amaranthus species*. Pig weeds. Tumble weeds. Amarantaceæ.

These weeds are very abundant in certain localities. They are said to be useful in checking hemorrhages. *A. retroflexus* is cultivated by some Indian tribes for its food value, the seeds being most generally used. (Contrib. U. S. Natl. Herb, 7:III, 346.) (Calif. Geo. Survey, Bot. 2:41.)

64. *Amaranthus leucocarpus*. Pig weed. Amarantaceæ.

Used by Indians, medicinally and for food, as is also *A. powellii*. They have astringent properties. (Proc. A. Ph. A., 27:153, 1879.)

65. *Ambrosia species*. Ragweeds. Compositæ.

These have enjoyed a popular medicinal use for ages. Used principally in the form of a wash for its astringent stimulating effects. Ragweeds are common along roadsides in nearly all parts of the United States.

66. *Ambrosia artemisiæfolia* L. Rag weed. Roman wormwood. Hogweed. Compositæ.

Has the properties of ragweeds generally. Contains a bitter glucoside (Am. Journ. Pharm., 1890). It has been introduced into the *Materia Medica* of the Eclectics (see King's

Dispensatory). Used principally in low fevers. It is also said to be a useful remedy in Rhus poisoning. (Proc. A. Ph. A., 28:102, 1880.)

67. *Ambrosia psilostachys* D. C. Ragweed. Compositæ.

This plant has not been well investigated. It is generally believed to be inferior to the above species.

68. *Amelanchier alnifolia* Nutt. Service berry. Pyraceæ.

The berries, fresh or dried, are eaten by Indians. Perhaps contains amygdalin. The wood is used for making arrows; also for making the sticks with which Indians play the "rag game," resembling shinny-on-the-ice.

69. *Amomum (Elettaria) cardamomum*. Cardomom. Zingiberaceæ.

A well-known spice and aromatic drug. The plant is said to thrive in southern California. Whether it could be grown profitably is not known.

70. *Ammobroma sonora* Torr.

The fresh plants are dried in the sun or roasted and eaten by the Indians. Said to taste like sweet potatoes. (Calif. Geo. Survey, Bot. 1:464.)

71. *Ampelopsis quinquefolium* Michx. American ivy. Virginia creeper. Vitaceæ.

A very common cultivated arbor climber. Bark and twigs are used by the Eclectics as an alterative, tonic and expectorant. Also used in dropsy. Poisonous in large doses. (Proc. A. Ph. A., 25:187, 1877.)

72. *Amygdalus varieties*. Almonds. Rosaceæ.

Numerous varieties of the bitter and sweet almonds are grown in the State. Almond growing is a staple industry. A variety of uses made of the fruit. Numerous special reports on almond culture.

73. *Anagallis arvensis* L. Pimpernel. Poison chickweed. Primulaceæ.

A poisonous weed used by the ancients as a nervine in convulsions. Also

used in hydrophobia, dropsy and consumption. Applied locally to sores and ulcers. Used in gout, and was at one time much employed as a plague remedy. It is said to contain a pepsin-like ferment. (U. of C. Agr. Exp. Rep., page 247, 1890.)

74. *Ananas (annanassa) sativa* Schultz. Pineapple. Bromeliaceæ.

Cultivated in southern California (Santa Monica). The fruit contains a digestive ferment, acting on albumenoids. Has been used to digest the membrane of diphtheria. There are numerous culture varieties. (See very complete paper on cultivation, etc., by P. H. Rolfs, No. 291.)

75. *Anaphalis margaritacea* B. & H. Everlasting. Compositæ.

A popular fragrant border plant. Eclectics use it as an astringent and expectorant. The leaves and flowers chewed and juice swallowed relieve ulceration of the mouth. A warm infusion used as a diaphoretic, in bowel complaints and hemorrhages. Used in fomentations to ulcers and swellings. The fresh juice is said to be aphrodisiac.

DRUGGIST LEGISLATORS

By W. B. Cheatham

There is at the present time a greater need for the druggist to take an active interest in legislation than ever before, for the reason that laws affecting them have multiplied amazingly, and nearly every law has objectionable features that might have been eradicated at the time of enactment, had there been a few representative druggists serving as legislators.

It is a singular fact that nearly every business interest and nearly all the learned professions are in a measure protected by representatives thereof who have sufficiently interested themselves to become members of legislative bodies, except the druggist.

There is no good reason why the druggist should be an exception and allow his business interest to become a football for every crank who has an ax to grind.

There are any number of them that have the time and ability to represent their profession as other professions are represented, and they have the popularity that is requisite to election.

Many of them attend county conventions, and a few are delegates to nominating conventions; why not go a little further, gentlemen, and accept nominations and place your business and professional interests on an equality with others?

You are public servants as it is, in the minds of most people; then why not place yourselves in a position to demand that justice and reasonable protection for your business that others demand and obtain? That many of the laws affecting you are crude and unreasonable you well know; that they should be revised you also know; that the revision can best be done by those who know what is needed for the protection of the public as well as yourselves you are well aware; then why not make up your mind to go, or send other druggists, to the legislative bodies as members?

Those of you who know druggists who are interested and understand the political game, should smoke them out and force them to become candidates, and then take off your coats and help elect them.

It is a foregoing conclusion that the pure drug and other drug legislation will soon be before every legislative body in the United States that has the right to deal with such matters, either in the shape of new measures or amendments to those now existing, and it will be almost criminal carelessness to let the opportunity to serve the public and yourselves fairly and intelligently pass without grasping it.

Do not lull yourselves to sleep with the thought that when the times comes you will send a committee to cool its heels in the lobby while asking the law makers to be reasonable; remember the legislators have troubles of their own and will not care to absorb yours because a committee asks it.

The committee idea is all right, and it is necessary, but the committee can accomplish a great deal more if they are assisted by a fellow druggist who is a member of the law-making body.

The time to take up this matter is before the nominating conventions meet, and there is no time to be lost. Get busy and keep everlastingly at it until you are well represented in the making of new laws and in the revision of those that need changing.

SEEKING A DRUG CLERK

A few weeks past, after a diligent hunt through the country for a registered drug clerk had proved to be of no avail, the druggist's last resort was to apply in person to the Bay Coast Drug Clerks' Association, situated on Steiner Street, San Francisco.

For a stranger it proved to be a task to find the office of the association, even with the assistance of the driver of the wagon which conveyed us to the office. On the bay-window was the sign "Drug Clerks' Association," etc., in small gold letters. Here is the place. I am glad I am here alive, for you know when one at this time visits a union office with a view of finding union help, it is policy to drive up in front of the door of the place in one of those improvised street-cars. No electricity; wagons with a load of bricks as ballast, to say nothing of ammunition for emergencies, for all know who have ridden in the union street-car wagons that ballast is necessary to keep one from being jolted out onto the cobbled roads.

An entrance was made to the office without the usual knock, and before me were thirty-six chairs, all vacant save one, which was occupied by the secretary, a young lady. She said: "How do. What can I do for you?" I said: "I don't know. Are there any vacant chairs around here?" and then, thinking I was a vacant clerk anxious to join the union, she said: "Yes, sir." I said: "Oh, yes; I mean clerks looking for a good position." "Why certainly. Do you want a registered man?" When I said "The pharmacy law tells me that I must employ first-class men." "That is right," said she. "Well, Miss Secretary, what can you do for me?"

"Do you live in the city or the country?" "I am doing business in the

country, not so far from the city; in fact, we consider our town quite civilized, our climate is better than that in the city, and living expenses are much cheaper." She said: "Drug clerks who have worked here do not care to go to the country." I replied that they were treated better in the country, don't have to work so many hours, etc. "Oh, things have changed here. Licentiate clerks demand 10 hours' work a day and \$100 a month, assistant clerks \$75 a month." "Well, well," said I, "that is really good. I, for one, am pleased to hear that the pay for drug clerks is set at such good wages. However, I want a first-class clerk. In my experience a first-class man will be paid first-class salary, but a second-class man must not expect a first-class salary, no matter what his credentials may be. Credentials don't always make the man first-class. There are many other accomplishments which he must master in order to be classified first-class. I am in the habit of paying a clerk just what he is worth to the other fellow." "I presume you would like to interview some of the clerks on our list." "Certainly," said I. "All right. Be here at 1:30 p. m., and I will have three clerks here." "Very well," and out I went. At the time set I was on hand. When the secretary introduced the clerks to me I entered a private room with one of them, when I said to him: "You are looking for a position?" "Yes, sir."

"What do you value your services at?" "You see, I am a union man and must get \$100 a month, two or three nights off a week, every other Sunday, and work on an average 60 hours a week." "Well, you must be a first-class clerk." "Yes, sir." "How many years' experience have you had?" "Six years." Said I: "And you are a first-class clerk?" "Yes, sir." I said, "Now,

look here, young fellow. Answer me truthfully, are you a first-class clerk? You know I want a first-class man, and if you should come to work and you are not first-class I will surely find you out, and will discharge you. If you prove to be first-class, and are capable of earning \$100 a month working 10 hours a day, I am the man that will most cheerfully pay you all that you earn; so do not attempt to work for me unless you know you can make good. By the way, what credentials have you earned? Are you a graduate in pharmacy?" "No, sir. To tell you the truth, I am going to try for the licentiate in pharmacy at the July examination." "Well," I said, "I am surprised, why didn't you say so at first? Good day," and off he went.

Clerk No. 2 and clerk No. 3 were interviewed with about the same result. I then called again on the secretary and told her that the clerks were not up to the requirements of the law.

Two weeks later I called again and was handed the names and addresses of five more clerks. On investigating the five, I did not find one first-class clerk among all of them. So I came to the conclusion that all the good clerks are paid the same salary they were paid 20 years ago, namely \$100 to \$125 per month. Our trouble is to get first-class clerks. The woods are full of second and third class men.

A PHARMACIST.

COMMUNICATIONS

Pacific Pharmacist,

Gentlemen: In answer to your communication of 22d ult., I will state:

Toilet Articles

That it is the province of the Board of Pharmacy to enforce the laws regulating the handling of drugs and medicines, and as preparations manufactured and sold strictly as toilet articles can hardly be construed

to mean medicinal preparations, we would not deem it necessary for the proprietor who devotes himself exclusively to the manufacture of such preparations to employ a registered pharmacist to take charge of his laboratory. If, however, such manufacturer were to include in his list of products preparations for the mitigation or cure of cutaneous diseases or other troubles to which flesh is heir, he would then be overstepping the boundaries of strictly toilet articles and the preparations would come under the supervision of the Board and be amendable to the laws under their jurisdiction.

Antikamnia and Codeine

As in the tablets offered under this name codeine is one of the predominating ingredients, and the activity of the combination is largely dependent thereon, it would be as unlawful to dispense antikamnia and codeine in combination as to dispense tablets of codeine alone.

Methods of Living up to the Law.

In answer to the above query, would state it is our experience that a great many druggists are not familiar with the laws under which they operate. The first thing, therefore, is for each pharmacist or prospective pharmacist to study carefully, section by section, each law pertaining to his calling. The Board of Pharmacy has recently mailed to every person whose name appears on the Licentiate or Assistant Register a pamphlet containing all of these laws, and will mail a copy to any other interested person upon application. After familiarizing themselves with these several acts, let them live strictly up to their provisions, and no honest druggist need fear for a moment that his legitimate business will be interfered with.

Some of the Important Points to be Considered

Let the employer be careful that the help he is engaging is properly qualified from a legal as well as a professional standpoint. It may be a surprise to some of your readers, but it is nevertheless a fact, and frequently occurs, that an employer is paying for the services of a Licentiate and believes he is getting what he is paying for when really the clerk is only an assistant and perhaps entirely unregistered. No pharmacist has the right to practice unless he is in good standing on the books of the Board. If, therefore, the employer desires

to protect himself, let him demand of his prospective clerk his last re-registration receipt,* and if he cannot produce same, accept no excuses, but decline to have further dealings with such clerk until he can show such receipt or a document from the proper authorities that he is in good standing; also observe carefully that each employee remains in good standing, paying his re-registration fees on or before July 1st of each year. Section 10 of the Pharmacy Law requires that each registered pharmacist or assistant registered pharmacist of the State "shall keep his last receipt for re-registration conspicuously exposed in his place of business." There is, therefore, no excuse for a proprietor to be deceived, and yet in our inspections we frequently find that the proprietor will be satisfied with the simple statement from his employee that "I am registered," and assumes that he is registered as a Licentiate in California when the employee is only registered as an assistant or, as frequently happens, is a registered pharmacist of some other State and simply plays on the credulity of the proprietor in this manner. In several instances we have found that the clerk was absolutely unregistered and was deliberately deceiving the proprietor.

Apprentices

Many proprietors do not seem to realize that apprentices cannot be left in charge of the drug store, even for a short time, being confused in regard to that part of section 1 of the pharmacy law in relation to taking temporary charge by registered assistants. Under no circumstances can an apprentice, whether he be registered as such or otherwise, be left alone in a drug store to sell drugs or medicines even of the simplest

* While the above article from the Secretary of the State Board of Pharmacy might suggest to some that the chief object is to get the two dollars for the registration, it is nevertheless true that without the annual fee it would be impossible for the good work done by the Board of Pharmacy to be continued.

The State legislature has thus far refused to make an appropriation to maintain the board, and without the annual fee from every registered pharmacist the law would be non-operative for want of the financial aid necessary to continue it in force. Looked at in this light, the payment of the fee should be a pleasure. F.

character. Section 15 explicitly states that the work of an apprentice must be done under the direct, immediate and personal supervision of a registered pharmacist, and that no apprentice shall ever be left in charge of a pharmacy.

Registered Assistants

Many proprietors seem to feel that they are complying with the law when they employ a registered assistant and leave him in charge of the store for indefinite periods of time. We would like to impress upon such proprietors the fact that the registered assistant can only be left in charge when the proprietor is within call, ready and able to assume direct supervision of said pharmacy. Temporary absence has been legally construed to mean only those unavoidable absences which may occur in a day's work. It does not mean that the proprietor can leave the store for parts unknown for an afternoon or a Sunday, but only for short periods of time when he could be called and could immediately return to the store and assume proper supervision.

The above are some of the points that occur to us at this writing. There are many other points in reference to the laws which may be taken up later on, but we trust the above will be satisfactory to you for the present.

Very truly yours,
CHAS. B. WHILDEN,
Secretary.

—California State Board of Pharmacy.

MY HIRED MAN.

My hired man in Washington
(His name is Theodore)
Is the all-firdest hired man
I ever seen before!
He calls hisself my servant,
An' I pays his salaree,
And then, the critter turns aroun'
And bosses me!

O the hired man, the hired man,
The greatly loved, admired man,
The never, never tired man,
Whose name is Theodore!
As much as I admire him,
I'd sometimes like to fire him,
And then turn round and hire him
Some more!

—St. Louis Globe-Democrat.

WHY WE SHOULD NOT DEMAND A HIGH SCHOOL PRE-REQUISITE FOR COLLEGES OF PHARMACY

By Dr. Otto A. Wall, M. D., Prof. of Botany and Materia Medica, St. Louis College of Pharmacy

While it may be admitted that higher education is quite desirable for pharmacists, it is at the same time true that it is not so absolutely indispensable that it must be made compulsory, either by resolutions of the Conference of Pharmaceutical Colleges, or far less so by the laws of the various States.

It will be conceded that if we could make college education in pharmacy more popular and more general than it is now, an immense gain would be had even if colleges of pharmacy remained as they are now, without raising their entrance requirements or increasing their educational demands. At present the great majority of applicants for registration before State boards of pharmacy are not graduates from any college, and an overwhelming majority of them have never attended a college of pharmacy at all.

To improve such a condition we should not make entrance to colleges of pharmacy more difficult, but easier. We should begin to improve educational conditions from the bottom up, not from the top down. To be able to do this we must understand the conditions, just as a physician must make a diagnosis before he can prescribe a cure. We will therefore ask a few pertinent questions and let the published opinions of some prominent educators of our country answer them.

Why Are Our Students from the Grammar Schools Not Better Educated?

Mr. Edwin C. Cooley, superintendent of public schools in Chicago, answers as follows in Philadelphia **Sat-**

urday Evening Post, for June 8, 1907:

"There is no denying that our public schools are doing too much overhead shooting. . . . Probably this tendency to overshooting in our public school educational system shows more plainly in our high schools than elsewhere. What is a common-school education for, unless it be to fit the mass of pupils for the practical duties of life? And if the high school leaves its pupils with only a preparation for college instead of a preparation for life, when most of the pupils cannot go to college, does it not score a lamentable failure in efficiency and overshoot the mark? . . . The effect of treating the high school as a college feeder rather than a people's college is felt all along the line of the elementary grades. The course of study in the lower grades is made subservient to the idea of high school graduation in the same way that that the high-school course is framed to fit the idea of the college or university. The grades of pupils are put through studies which no reasonable human being would assign them on any supposition other than that of graduating from high school and passing on to the college. And yet it is a certainty that only a small percentage of grade pupils enter the high school, to say nothing of being graduated from it, while the percentage of those who reach college is almost infinitesimal."

"Common school training should be a common-sense training adjusted to bear directly upon the reasonable expectations of the mass of pupils, upon the needs of the community and the

needs of the individual in his relation to his community. . . . After all, utility should be the supreme test in education. And this standard should be especially applied in shaping the course of study in the common schools. The statement that the curriculums of the public schools will not generally stand this test may be a surprise to many parents; but such is the lamentable fact."

That these defects exist in our common grammar schools every one familiar with public education knows, although there may be many who would not like to admit it in public. Since these shortcomings cannot be remedied by ignoring or denying them, our first duty should be to bring pressure to bear to improve the educational facilities for the children of the masses, the children who must go to work at a comparatively early age; this is of more importance and will be of more far-reaching effect than the effort to enforce academical requirements for the children of the upper classes. It ought not to be difficult to so improve our grammar schools that graduation from them would be more than equivalent to two years' attendance in high school under present educational conditions.

But, some may say, these defects in our schools are to be found only in the backwoods, or in the newer States and Territories.

Are These Defects Found Also in Our Cities?

Let Mr. Wm. J. Shearer, superintendent of schools in Elizabeth, N. J., answer this question. I quote from an article on "School Children in Lockstep," in *World's Work*, August, 1907.

"The following extract is from an editorial in the Philadelphia *Ledger*: 'There is in the United States a city, only 72 per cent of whose children at-

tend the public schools. Of these, only seven-tenths of one per cent pass through high school; only 4.3 per cent reach it. Eight-four per cent leave before they have gone half-way through the grammar school. Sixty-six per cent go only through primary grades; 53 per cent stop at the second reader."

"The city in question is facing a future in which there is no assurance that one-quarter of its population will be able to write their names; or more than half of its population be able to read . . . or do such simple sums as can be counted on the fingers; or one-eighth possess the merest rudiments of knowledge; or one in twenty-three have mastered the common branches; or one in 143 have availed himself fully of the education provided by the State. . . ." The city is Philadelphia."

"These facts are well-nigh incredible, but, being beyond doubt, they afford reason for the most humiliating reflections and call for instant resolution to seek for the causes of a condition so terrifying."

Every member of this association should read the article referred to. He will find there some very surprising and humiliating statements regarding another great city and State . . . New York . . . which will convince him that there has been too much "hurrah" and too little real worth in much that the public has been taught to believe almost faultless education.

I have, during the past year, directed attention to the educational conditions in various states, and have demonstrated that only a small fraction of one per cent of American children ever get an education that is equivalent to graduation from high school, because either they live where there are no high schools or they have no money to attend them. There is no

such thing as "free high school education." High school education, even where tuition is free, is beyond the means of most children, and tuition is not even free to a very large proportion of American school-children.

Why Are Our Common Schools Not Better Than They Are?

It has been a common complaint in most of our higher schools of various kinds that the children now coming from the common schools are not as well qualified as when we ourselves were girls and boys. This is not merely our imagination or our self-conceit, but it may be conceded to be a fact. In fact, it is the cause for the present unreasoning clamor for a high school prerequisite for colleges of pharmacy.

The editor of the *St. Louis Republic*, in the issue of June 9, 1907, answers this question.

"The country schools, in fact the primary and common schools, too, have lost their grip, or, at least, their quantity and quality are not equal to the demand, and higher education has been fed, forced, coaxed, pushed and philanthropied out of all fair proportion to primary and lower instruction."

"This means that the State and philanthropists have been improving education at the top. We are so overwhelmed with colleges that we are at our wits' end to supply them with pupils."

"Upon the other hand, the need of the masses for primary forms of education, especially out of the cities, never was so poignant or so great."

"The fact that young men and women are fitted for and are about to enter college is, *ipso facto*, proof that they are people of some means, at least not children of the abyss. Therefore the colleges are for the greater part only for the chosen and elect."

"States levy taxes and philanthropists levy glory by erecting, establishing and maintaining colleges for the few and fortunate. Meanwhile the many and unfortunate are neglected. Mr. Carnegie, Mr. Rockefeller and others have begun wrong. They are cultivating the Tree of Knowledge at the top by spraying the leaves, while the roots are perishing in unfertilized soil. This is contrary to all sound principles of arboriculture. First, a sound root, then a sound tree. Begin at the bottom."

But this would hardly suit our academic friends, the university professors, because, if the conviction expressed by the editor of the *St. Louis Republic* should be generally accepted by the public, it would inevitably reduce the appropriations for the "universities" in order to apply to money to the much-needed education for the children of the people.

Are Conditions Improving in Our Schools?

They are, mainly because there have appeared educators who have had the moral courage to tell the truth and point out the defects. The "slump" in education, which was so marked a feature of the last decade or two, was produced by the introduction of various fads in our schools, such as kindergartens, learning to read without spelling ("phonetic" or "syllable" method), language lessons instead of grammar, etc.

But let Dr. Arthur Twining Hadley, president of Yale University, tell us about this (from an interview published in the *St. Louis Globe-Democrat*, July 7, 1907):

"We have introduced all through our schools a good many kindergarten methods and a good many studies which are of the nature of play. . . . When these play-studies begin to be

valued for their own sake there is trouble. There was a time when we had a good deal of that trouble. There was a generation of boys and girls who could not spell or make a sum come out right, or accept the responsibilities of hard school work of any kind. Fortunately the worst of this period has passed. Our boys today spell better, and work harder, and have more intellectual responsibility than they did five or ten years ago. . . ."

"There was a noticeable deterioration, however, from about 1895 to 1902. It was then that the American colleges got their first crop from the kindergartens of the country. The students were deficient in spelling and the use of English. . . . The first kindergartens were extreme in their methods. They are improving, I am glad to say, and are no longer open to serious criticisms."

If we will have patience to wait a few years longer, we will find that conditions in our grammar schools will be so changed that "one year in high school" will not be needed to improve on present conditions.

Do the Universities Serve for the Greatest Good of the Public, or for the Greatest Good of Themselves?

Prof. John R. Kirk, president of the State Normal School at Kirksville, Mo., answers this question in the St. Louis **Republic** for June 23, 1907, as follows:

"There are trusts and monopolies in education as elsewhere. The big universities seek to focus all energies upon higher education (so-called), and to bend all things below them to their own purposes. They are organized and firmly knit together. They know one another well. They are mighty monopolists. We need universities, . . . but they ought not to be in ab-

normal relation to other things. They make our school system topheavy."

"In New England and to the north of us the universities exploit all education and force all public schools to become special preparatory schools for the universities. Nearly every university supports a teachers' agency, composed of faculty men, and called the 'Committee on Positions and Recommendations.' One member of the committee is a traveling agent, called high school inspector. He represents the bureau. He fixes high school courses of study, watches for vacancies, in a large measure controls the appointment of high school teachers and strives to concentrate the attention of high school students upon the university.

"It is an open secret, that the so-called 'small college,' hitherto one of our main reliances in American education, is to be throttled and driven out."

That some of our formerly independent colleges of pharmacy have been compelled to succumb as independent schools, and to seek affiliation with universities is to be regretted for the sake of pharmacy itself; but . . . "'tis true; and pity 'tis, 'tis true."

Should Colleges of Pharmacy be University Departments?

The majority of our State "universities," even those that are not really universities at all, try to maintain the old academic ideals and traditions that have been handed down to us from generation to generation, from the time when education was supposed to be the exclusive privilege of the leisure classes.

A rational modern idea of the relation of schools to each in a proper system of education, is somewhat as follows:

Primary Education

Primary
and
Grammar Schools.

Secondary Education

Manual Training School
Agricultural Colleges
High Schools
Academies
Technical Trade Schools
Business Colleges
Correspondence Schools
Etcetera

Higher Education

Normal Schools

Professional
Colleges
and
Universities

Be it admitted, for argument's sake, that the way through high school to the academic higher institutions is the best way; as long as high schools are not more generally available, or of more satisfactory educational value than at present, it ought not to be the only way to enter professional colleges or universities. When universities introduce "departments" that really belong to the secondary group, of schools, as, for instance, departments of pharmacy, the latter do not thereby become real university departments, but should be considered as secondary schools, like the high schools, the equivalents, collaterals or alternatives of the high schools; and it should not be necessary to go through high schools, or to go to high school at all, as a preliminary to a business or trade education.

Pharmacy schools for drug clerks and the retail druggists are essentially technical trade or business schools; they rank with high schools and not above high schools; they are alternatives for high schools, and not legitimately university departments at all.

**Is This a Rational Explanation of the
Relation of a Pharmacy School to
General Education?**

Dr. Arthur Twining Hadley, president of Yale University, in the interview already referred to, answers this question:

"I certainly do not think that everybody ought to have a college, or even a high school, education. But it seems to me a mistake to separate boys into

those who propose to go into business or professions, as though that were a natural and fundamental division. I believe that every boy whose parents have the necessary money should go on with his general education as long as the opportunities for culture and the ideals of public spirit which it inculcates appeal to him. The instant that appeal ceases to have force, let him begin a technical course which will lead him to his work as soon as possible. When the culture motive stops, the money motive must come in. But I know many men in trades who would have gotten the fullest profit out of a college education, and some men in commercial and professional life with whom the time spent in college or in the high school was pretty largely thrown away."

In other words, if a boy or girl has taste for academic culture and ambition to go through high school or further, he or she should do so if the parents can afford to pay for it; but if, for either of the two reasons, lack of inclination or lack of money, they cannot go to high school, let them go direct to a school that will teach them the trade or business they intend to follow. In this sense, a college of pharmacy or a business college for bookkeepers, stenographers, etc., or a manual training school for engineers, mechanics, electricians, draughtsmen, chauffeurs, etc., is not in the ascending line in academic education, but collateral or parallel with the high school.

This does not mean that men who

aspire to the highest positions in these respective callings will not do well to complete a full academic course, but merely that the rank and file, the overwhelming majority of those who intend to follow these callings, do not need the academic training to become efficient, competent tradesmen or business men.

Should All Who Want to Become Pharmacists Go to Colleges of Pharmacy?

From the selfish standpoint of a professor in such a school, I might be tempted to say "yes" to this question; but from a broader, fairer standpoint of honesty, the most that can be said is, that all who can afford to do so would find a college training a great help to success in life. Every boy who enters pharmacy as an apprentice should make it his aim to get a college education, if possible. But it should not be made absolutely obligatory. The president of Yale University said: "Desirable as it is in all respects, a college education may cost too much. It is not worth the surrender of one's self-regard or self-reliance. A mother and her daughters deprive themselves of the necessities of life, go hungry, perhaps, as well as shabby, that a son and a brother may stay in college four years. An education is too dear at such a sacrifice. The duty of a son and brother is to help his mother and sisters, if they need it. A college course at the expense of their physical welfare is a hardship on them and a positive injury to the student."

Fortunately, the boy who finds himself in this predicament can make his way in the world by application to study without going to college. The common sense question should be: Has he learned a certain subject? The academic question would be: Has he learned it in a high school in a cer-

tain number of academic units of eight months' work of not less than four forty-minute periods each week? Thousands and tens of thousands of such young people have found the correspondence schools the ladders by which they have risen to success. No laws ought ever to make it impossible for such youths to climb.

The Attendance at Our Universities

In the following table I quote the attendance from the various States at the most prominent universities of our country, as given in *Science*, July 26, 1907. The list is not quite fair, because it includes some State universities, while omitting other State universities, thus making the attendance from States whose universities are not included unduly small as compared with that from States whose universities are included. On the other hand, the State universities so included in the list are really universities, with more than local reputations, while many, if not all of the State universities not included, are not really "universities," but are only called so.

The first column shows how many students from each State attend the universities; the second column shows the population (1900 census) of the States, and the third column shows approximately how many persons out of every 100,000 attended the universities in the year 1906-1907:

States	Students	Population	Per 100,000
New York	7,052	7,268,894	98
Illinois	4,313	4,821,550	88
Pennsylvania ..	4,281	6,302,115	68
Massachusetts ..	3,909	2,805,346	139
Wisconsin	3,246	2,069,042	162
Ohio	2,946	4,157,545	72
*California	2,788	1,485,053	186
Michigan	2,573	2,420,982	107
Connecticut	1,423	908,420	158
New Jersey	1,394	1,883,669	73
Rhode Island ...	671	428,556	134
Virginia	540	1,854,184	28
Indiana	477	2,516,462	19
Iowa	417	2,231,853	19

* We are pleased to note the remarkably high educational standing of California.—S.

New Hampshire.	407	411,588	102
Missouri	379	3,106,665	12
Maryland	289	1,188,044	24
Maine	250	694,466	36
Minnesota	231	1,751,394	13
Dist. Columbia..	227	278,718	76
Kentucky	226	2,147,174	11
Colorado	222	539,700	44
Vermont	191	343,641	63
Texas	149	3,048,710	5
Kansas	141	1,470,495	9
Tennessee	125	2,020,616	6
Nebraska	123	1,066,300	12
Washington	114	518,103	23
Alabama	113	1,828,697	6
West Virginia...	100	958,800	10
Georgia	97	2,216,331	4.4
Delaware	93	184,735	42
North Carolina..	93	1,893,810	5
Oregon	93	413,536	23
Montana	88	243,329	33
South Dakota...	70	401,570	17
South Carolina..	67	1,340,316	5
Utah	67	276,749	24
Mississippi	64	1,551,270	4
Arkansas	50	1,311,564	3.8
Louisiana	49	1,381,625	3.5
Florida	43	528,542	8
Oklahoma	38	398,331	9.5
North Dakota ..	37	319,146	12
Idaho	18	161,772	11
Wyoming	18	92,531	19
New Mexico	15	195,310	8
Arizona	13	122,931	11
Nevada	11	42,335	26
Indian Territory	10	392,060	2.5

Let it be conceded that, in a general way, the attendance at universities is a gauge of educational conditions in the respective States, and it follows, from the vast difference shown in the last column of the above table, that it is impossible at present to enforce a uniform rule for admission to colleges of pharmacy, regardless of geographical location or educational conditions.

For instance, if the representatives in the Conference of Pharmaceutical Faculties from New York, with 98 university students per 100,000 inhabitants; Illinois, with 88 per 100,000; Massachusetts, with 139 per 100,000; or Wisconsin, with 162 per 100,000, really think they ought to ask a high school prerequisite for entrance to a college of pharmacy, it would nevertheless be very unfair on their part to vote to compel the college of pharmacy in Missouri, with 12 university students per 100,000; Kentucky, with 11 per

100,000; Kansas, with 9 per 100,000; Tennessee, with 6 per 100,000; Georgia, with 4.4 per 100,000, or Louisiana, with 3.5 per 100,000, to make the same academic requirements; and any claims that might be made by the representatives of the latter States that their States are in a position to comply with such requirements would be absurd exhibitions of false pride and false pretense, absolutely at variance with the officially published statistical facts concerning their States.

The main reason why some of the States show such small attendance at the universities is not that there is no appreciation of education in those States, but that the States are new, or financially poor, and high schools are not generally accessible to the children of these States; and, as the universities demand a high school prerequisite qualification, and some of these States have no high schools or only a few of them, the young man or woman from such States are barred from universities, not necessarily because they are not qualified to profit from university education, but because they are unable to comply with a technicality.

As a rule, also, the newer the State the more demand is there for labor, work, business, and the less leisure is there for gentlemanly loafing (an incentive that accounts for many a student at a university) and therefore the smaller is the number of young people who can afford the time for university education.

Is College and University Education Necessary for Success in Life?

Mr. Newell Dwight Hillis, in the St. Louis *Post-Dispatch* of August 4, 1907, answered as follows, in an article entitled "The World Is a Schoolhouse"; "Our age and civilization represent a large schoolhouse, where events are teachers. . . . For the

boy who knows how to ask questions, every man becomes a teacher . . ."

"For education is not an accumulation of facts. Culture is not the stuffing of memory with dates and names. Education is an awakening. . . ."

"The college is not the only school-room. The boy with his diploma must not think that the man who has not been to college is of necessity an ignorant man. That standard would make Burns and John Bunyan and Lincoln blockheads, would turn Jenny Lind and Sappho into dunces. The English bard never went to college, but he held a culture quite equal to the polished sentences of Samuel Johnson and Edward Everett. The occasional cad, fondling his diploma and despising every man who is not university bred, justifies the epigram that 'Colleges are places where brickbats are polished and diamonds are dimmed.'"

Will the High School Continue to be Merely a Feeder for Higher Institutions?

Mr. Eugene C. Warriner, Superintendent of Schools in Saginaw, Mich., answers (in **Michigan Alumnus** for June, 1907):

"However true it may be that secondary schools were called into being in response to a demand for students properly fitted to enter higher institutions of learning, the community has long since realized that the high school is in reality the people's college. It is not a university, but it may afford to a great mass of young men and women the elements of higher education beyond the absolute needs of common schools and of every-day life, which shall fit them, not only to make the most of life, but to become leaders in their respective communities. The first duty of the high school is always to the community which supports it. This must never be forgotten. The

slight feeling which may at times be expressed against the university has no doubt arisen from the thought that the university authorities were perhaps forgetting this paramount duty of the high school and regarding the high school as solely a fitting school or branch of the university."

The high school will, no doubt, fit men and women for universities in future as it has in the past, but it will not be conducted with mainly this end in view. The high school will not merely be the means to an end in education, but it will itself be the aim and end of the education of the people, and its relation to the universities will be only an incidental phrase. From the grammar schools, when perfected by the many able men who are now laboring with this problem, the pupils will pass to the high schools, academic seminaries, the manual training schools, the colleges of business and trades, agricultural schools, etc., and the millions of the people will consider their education (as far as the schools are concerned) completed when they have gone through one of these. Only the few will go from the high school to the higher schools, and I am not sure that the way to the latter will always continue to be necessary through the high school.

Will Colleges Continue to Depend on High Schools for Students? Will a High School Education Always Continue to be a Prerequisite for Entrance to Colleges and Universities?

I have already stated my belief that technical trade and business colleges should not demand such a prerequisite; many of them do not, and others, which now do, will no doubt discontinue to do so ere long. Whatever of high school work is necessary for their students to know, for proper under-

standing of the trade or business to which they are devoted, these colleges will have to teach themselves. In a valedictory address to the 1907 class of the Syracuse University (Syracuse, N. Y.), Dr. Andrew S. Draper, the Commissioner of Education for the State of New York, answered to the above question as follows:

"The American colleges will be obliged to work in accord with the overwhelming number of universities, colleges and secondary schools taken together. They will have to accept students **who can do their work**, and who want to do it, without so much reference to how or what they have studied somewhere else. The Western boys and girls say that under the accrediting system, by which institutions are examined more than students, it is easier to get into a Western than into Eastern universities, but that, once in, it is hard to stay in a Western university, while one who gets into an Eastern university can hardly fail to be graduated, if he will be polite to the professors and pay the term bills. And the Western people say that their way is the best; that every one must have his chance; that at least his chance is not to be taken away upon a false premise; that if he 'flunks out' after having had his chance it is his fault and no one is going to worry about it; and that it is better to regard the graduation standards and apply them to four years' work that the faculty must know all about them to make a fetish of entrance requirements and have so much ado about prior work—about which they know very little at best. It is all worth thinking about. I am not a Westerner; I am thoroughly a New Yorker. But I am for the open, the continuous and smooth road from the primary school to the university, and for every one having

his chance without any likelihood of his losing it upon a misunderstanding or a hazard.

"Our democracy is developing a new kind of civilization; our system of common schools, primary and secondary, has brought forth a type of advanced schools peculiar to the country. Institutions that would prosper may better recognize the fact. The universities that would thrive must put away all exclusiveness and dedicate themselves to universal public service. They must not try to keep people out; they must help all who are worthy to get in. It is not necessary that all these institutions shall stand upon exactly the same level; it is necessary that each shall have a large constituency. . . ."

"It is imperative that all shall value the man at his true worth and not reject him because his preparation has lacked an ingredient which a professor has been brought to worship."

It is to be regretted that the Conference of Pharmaceutical Faculties thinks of introducing the obsolescent academical prerequisite of high school attendance, just when the leading educators of our country are awakening to the newer requirements, finding that traditional academic prejudices are not so essential as they were once believed to be; just when educators commence to realize that high school attendance may be a meaningless formality and technicality when compared with the worth of the prospective student himself.

Let us cut loose from the fetters and traditions of the dying past, and join in the liberal educational movement so well described by Chancellor Winfield Scott Chaplin, in his address at the celebration of the fiftieth anniversary of Washington University, on June 20, 1907, in St. Louis:

"Entrance to Washington University is easy, the only requirements being that the student is prepared to profit by the instruction of its teachers. Its degree is based neither on age, nor sex, nor time of study, but on work and advancement. Its rules are few, its privileges many. It has but a single aim—to stimulate mental growth."

Utah Pharmacists Meet—Seventy-five Enthusiastic Members Attend.

The delegates to the seventh annual convention of the Utah Pharmaceutical Association in the opening day went to Saltair and enjoyed a Dutch lunch. In the opening session Richard Briggs made the address of welcome, to which B. F. Riter, of Logan, and Alexander Herquist, of Provo, responded.

The session was a very pleasant affair, both from the social and professional point of view. The ladies were entertained in a royal manner with excursions, luncheons, theatre parties, etc.

The list of papers read before the convention are titled as follows:

"What Is the Best Method of Influencing Physicians in Prescribing N. F. Preparations?" A. A. Robinson, Salt Lake, Utah.

"What New Ideas Regarding Window Displays Have You Used During the Past Year?" A. S. Horne, Salt Lake, Utah.

"How Would You Proceed to Make a Good Salesman Out of Your Clerk?" Richard Bridge, Salt Lake, Utah.

"Is a Rapidly Growing Post Card and Souvenir Business a Detriment or an Advantage to the Professional Pharmacist?" W. H. Dayton, Salt Lake.

"How Many of the Important Preparations of the N. F. Have You Made Up in Anticipation of a Demand for Them?" Charles Dee, Ogden, Utah.

"Can Pharmacy Be Elevated to Its Proper Professional Plane So Long as the Pharmacist Serves as an Accommodation to the Public?" J. H. Bishop, Logan, Utah.

"A Crystalline Precipitate Frequently Forms in the N. F. Elixir Ferri Quininæ et Strychninæ, What is the Cause, and Does This Precipitate Contain Any of the Alkaloid?" A. Hatch, Jr., Heber City, Utah.

At the close of the seventh annual convention of the Utah Pharmaceutical Association, the following officers were chosen: President, Alexander Hedquist, of Provo; first vice-president, Wynn Eddy, of Brigham City; second vice-president, T. R. Kelly, of Springville; treasurer, John Cully, of Ogden; secretary, J. H. Johnson, of Salt Lake; executive committee—Joy H. Johnson (chairman); John H. Bishop, Logan; M. D. Howlett, Eureka; W. W. Crawford, Manti; T. B. Hurlburt, Park City; A. Hedquist. The next meeting will be held at Provo.

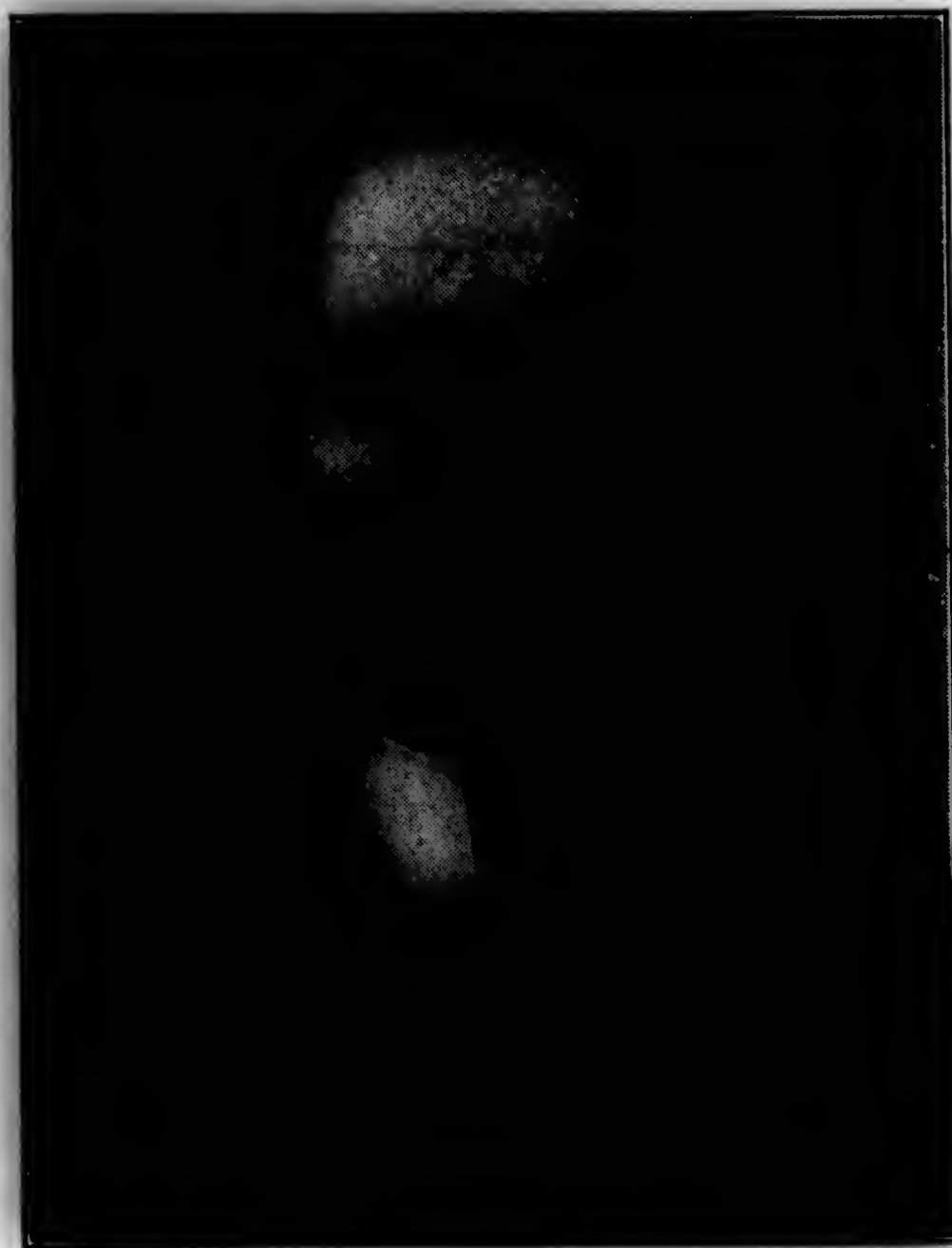
The proceedings informally closed with a banquet at the Commercial Club, where F. C. Schramm was toastmaster, and the following toasts were responded to: "What Has Happened to the Druggists During the Last Year," S. W. Badcon; "The Advancement of the Association During the Coming Years," A. Hedquist; "The State Board of Pharmacy," John Cully; "How to Arrange for Prizes for the State Meeting," William Bailey; "Benefits of Local Organization," F. A. Druehl; "The Year's Experience in the Retail Drug Trade," J. F. Marshall; "The Woes of a Traveling Salesman," W. E. Bailey; "The Advisability of Establishing a College of Pharmacy at Logan," John H. Bishop; "Curious Remarks," John Doull.

OPENING OF THE CALIFORNIA COLLEGE OF PHARMACY

The thirty-sixth annual session of the California College of Pharmacy (Department of Pharmacy of the University of California) was formally opened on Thursday, September 12. In the absence of the Dean, W. M. Searby, who had not returned from the meeting of the American Pharmaceutical Association in New York, Gaston E. Bacon, president of the Board of Directors, welcomed the students. As the last year's junior class was unusually small, this year's senior class was correspondingly small, but the freshmen class was fairly large. On Saturday morning (September 14) the student body were assembled in the main lecture hall and listened to an address by the Dean, who spoke on the recent meeting of the American Pharmaceutical Association, calling attention to the most excellent work performed by this organization and of the eminent men composing it.

The slight damage done to the College building by the earthquake has been fully repaired. The glassware and other equipment destroyed by the earthquake or requisitioned by the Red Cross Society shortly after the earthquake has been replaced. Additions have been made to the equipment, so that the work can progress better than ever before.

Italy produces annually about 1,800 tons of sulphate of magnesium, 600 tons of calcinated magnesia, and 625 tons of magnesite. The kingdom exports some 850 tons of sulphate of magnesium and imports 950 tons of chloride of magnesium, exporting about one-half of the latter amount. The domestic production appears to suffice for the home consumption and is apt to be increased according to necessities.—Paint, Oil and Drug Review.



The Druggist Mayor of Yerington, Nevada

The above portrait is that of Mr. Judson G. R. Smith, a leading druggist of Yerington, Nevada, who has been honored by being elected the first mayor of that prospering town. Mr. Smith should certainly be proud of this high honor, as he was comparatively a newcomer and his opponent was one of the most prominent merchants of the place. That he was successful was due no doubt to his exemplary habits and the confidence of the community, which he had earned during his short association with the public of Yerington.

Mr. Smith was first attracted to his present location by the glowing accounts of the fertility of the great agricultural valley surrounding Yerington, and the favorable outlook for the production of copper in the immediate vicinity. He located in Yerington in October, 1905, and shortly afterward, appreciating that an opportunity was open for an up-to-date drug store, succeeded, after advancing a year's rent as an inducement, in having a suitable building erected, which now contains a stock of drugs that will bear favorable comparison with that in much larger localities. Mr. Smith is an energetic advertiser, and backs up his solicitation for trade by most courteous treatment of his patrons, guaranteeing entire satisfaction. As a result, his business has rapidly grown to be one of the best in the sage-brush State.

Formulas

Laxative Syrup

Fluidextract cascara arom....	1 oz.
Fluidextract senna	1 "
Tincture rhubarb arom.....	2 dr.
Tincture cardamon comp.....	4 "
Spirit of peppermint.....	10 m.
Syrup, to make.....	4 oz.

This is a very pleasant and mild laxative or an active cathartic according to the size of the dose given. Children do not object to taking it, the aromatics giving the mixture an agreeable taste.

Tooth Powder

Precipitated chalk	4 oz.
Powd. orris root	1 "
Boric acid	1/2 "
Menthol	2 gr.
Thymol	2 "
Saccharine	2 "
Soap castile	1/2 oz.
Eucalyptol	10 m.
Oil gaultheria	60 "
Oil sassafras	5 "
Oil anise	5 "
Oil cassia.....	2 "

Mix the thymol, menthol, saccharine and the oils, add the chalk, boric acid, orris and soap, rub together and pass through a sieve.

This powder is a happy combination of the cleansing and agreeable qualities of aromatics and antiseptics.

The saccharine may be increased or left out to suit the taste, as some prefer tooth-powders without the sweetness.

Taxiderma Powder

For stuffing birds and preserving the hide and feathers.

Corrosive sublimate	8 oz.
Arsenic	21 "
Camphor	1 "
Alum	1 "
Boric acid	1 "

Powder the camphor with alcohol and, having the other ingredients in fine powder, mix them. The mixture is one of the best for taxidermic work

and has been used by experts in that line with splendid results.

Fruit Juices for Making Soda Water Syrup

Select fully ripe strawberries, raspberries, loganberries or currants; crush them to a pulp and place them in a muslin bag, let all the juice drain out that will, without pressing, then pour on one pint of water for each pound of berries used and allow it to pass through without pressing.

To each pint of the liquid use one pound of sugar, and heat nearly to the boiling point for five minutes, then place in sterilized half-pint bottles. This juice will have retained all the flavor and keep indefinitely. To make half a gallon of delicious syrup, add one bottle of this juice and three drachms of citric acid; color with carmine or cudbear.

St. Winifred Cologne or Spirit Odorata

Oil of Bergamot.....	1 1/2 dr.
Oil of Lemon.....	1 "
Oil of Lavender.....	1 1/2 "
Oil of Cassia.....	4 m.
Oil of Neroli	35 "
Oil of Rosemary	20 "
Oil of Rose Geranium.....	40 "
Alcohol, ad.	16 oz.

Mix; filter after standing six days.

The above is an inexpensive and delightful toilet water, to be used in the sick room or after bathing.

Lacquer

Shellac	2 dr.
Gamboge	1/2 "
Am. Saffron	25 grs.
Alcohol	4 oz.

Mix; keep in a warm place for two days; agitate frequently and strain. This will give a beautiful golden color to polished brass and protect it from tarnish.

Baking Powder

Cream of Tartar.....	4 oz.
Tartaric Acid	60 grs.
Bicarbonate of Soda.....	2 oz.
Corn Starch	2 "

Mix and pass through a sieve two or three times.

Two or three teaspoonfuls added to one pound of flour, with lard and salt to taste, will produce light and flaky biscuits.

This powder may be used for all kinds of sweet cakes, using less powder when eggs are added, as eggs assist in giving the desired lightness to the mixture.

The object of adding the corn starch to the powder is to separate the acid and soda and to prevent the chemical action taking place in the ordinary atmosphere, as the acid in baking powders is more or less hygroscopic.

Laxative Tea

Senna	10 oz.
Licorice Root	3 "
Marshmallow Root	2 "
Angelica Root	1 "
Chamomile German	½ "
Fennel Seed	¼ "
Saccharine	10 grs.

Cut the roots and senna and bruise the chamomile and fennel seed and mix with the saccharine.

To one or two tablespoonfuls pour on a cup of boiling water and strain after standing long enough to be drinkable. This will produce a laxative or purgative action, according to the amount of the tea taken at night or in the morning.

OINTMENT FOR BOILS

Carbolic acid	gr. v-x.
Fl. ext. ergot.....	dr. ss.
Starch,	
Zinc oxide aa	dr. ij.
Ungt. aq. rosæ.....	dr. ij.

Spread upon absorbent cotton over boil, secure with adhesive strips, and leave for ten to twelve hours.—Kansas City Med. Record.

Wood Stain for Violins, etc.

Dragons Blood	2 oz.
Alkanet Root	¼ "
Alcohol	16 "

Mix and shake occasionally for ten days; strain through fine cloth or filter through paper.

This makes a beautiful dark cherry stain, which may be deepened by applying several coats.

The following varnish may be used after the above stain has become dry:

Sandarac	4 oz.
White Shellac	2 "
Alcohol	8 "

Mix; dissolve by agitation and strain. If the varnish dries too quickly, half an ounce of true Venice Turpentine may be added to the mixture, which will require several days to dry and give a fine gloss.

Disinfectant for Sick Room

Camphor	20 parts.
Chlorinated Lime	50 "
Alcohol	50 "
Water	58 "
Eucalyptus	1 "
Clove Oil	1 "

For use, place a little of the mixture upon a plate.—American Druggist.

Dandruff and Beginning Baldness

Resorcin	1 dr.
Betanaphthol	½ "
Chloral Hydrate	2 "
Tr. Cantharides	4 "
Tr. Capsicum	1 "
Castor Oil	3 "
Cologne Water	4 oz.
Bay Rum, q. s. ad.....	1 pint.

Mix; rub upon the scalp just before retiring.—American Druggist.

Spoke Too Soon

Doctor—Have you consulted any one else?

Patient—I went to see a druggist, and he told me—

Doctor (interrupting)—Don't tell me that you asked advice of a druggist. No one except a lunatic would take the advice of a druggist.

Patient—I was about to say that he told me to come to you.—Cardiff Times.

FOOD INSPECTION DECISIONS 54-59

54. Declaration of the quantity or proportion of alcohol present in drug products. 55. Method of stating quantity or proportion of preparations (containing opium, morphine, etc.) used in manufacturing other preparations. 56. Names to be employed in declaring the amount of the ingredients as required by the law. 57. Physicians' prescriptions: The status of packages compounded according to physicians' prescriptions and entering into interstate commerce. 58. The labeling of products used as food and drugs as well as for technical and other purposes. 59. National Formulary appendix.

(F. I. D. 54.)

Declaration of the Quantity or Proportion of Alcohol Present in Drug Products

The question of stating the percentage of alcohol present in drug products has caused a multitude of inquiries. The following questions along this line serve as examples:

Is it necessary to give the amount of alcohol present in U. S. Pharmacopœial or National Formulary products? It seems to me that such a requirement is absurd, and not contemplated within the spirit of the act. None of them are patent medicines. Will I be compelled to tell how much alcohol is present in such goods?

If we apply for and obtain a serial number, must we in addition to putting this number on our labels state the per cent of alcohol?

Will it be necessary to give the per cent of alcohol present in such products as ether, chloroform, collodion, spirit of nitrous ether, and similar preparations?

The law is specific on the subject of declaring the amount of alcohol present in medicinal agents, as can readily be seen from the following language: "An article shall also be deemed misbranded * * * if the package fail to bear a statement on the label of the quantity or proportion of any alcohol * * * contained therein." No medicinal preparations are exempt, whether they are made according to formulæ given in the U. S. Pharmacopœia or National Formulary or formulæ taken from any other source. The serial number, with or without the guarantee legend, does not exempt a preparation from this requirement. The law does not make any statement as to the amount of alcohol that may or may not be employed. It requires, however, that whatever amount be present shall be set forth on the label. The percentage of alcohol given on the label should be the

percentage of absolute alcohol by volume contained in the finished product. The manner in which it should be printed is shown in F. I. D. 52.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

(F. I. D. 55.)

Method of Stating Quantity or Proportion of Preparations (Containing Opium, Morphine, etc.) Used in Manufacturing Other Preparations

Many inquiries are received as to the method of stating the quantity or proportion of preparations (containing opium, morphine, etc.) used in the manufacture of other preparations. Of these the following are typical:

If the label on the bottle were to bear the words "Tincture of Opium," I reason that as this is a definite preparation, constituting a preparation of opium, and so definite as to its composition that to any intelligent person it expresses definitely all that it is desirable to express, the use of this title alone should be sufficient. I feel that as a preparation it is distinct from opium, and if this particular tincture is used in the manufacture of a preparation the mention of it alone should be sufficient.

Where extract or tincture of cannabis indica, or extract of opium, is employed in making other drug products, would it not be complying with the law if the use of such articles be clearly indicated on the label as prescribed by the law, or is it necessary to give the actual amounts of the drugs themselves represented by these preparations?

Names of drug products bearing any of the names of the ingredients enumerated in the act are construed as representing "preparations" within the meaning of the act; and if the same are clearly declared upon the label as required by Regulations 17 and 30, it will not be necessary to give the actual amount of the primary drugs used or represented by such article. It is desirable, however, that the word or words used in the law shall constitute the first part of the name of the product. For example: "Opium, Tincture of"; "Cannabis Indica, Extract of," followed by the amount of tincture or extract used.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

(F. I. D. 56.)

Names to Be Employed in Declaring the Amount of the Ingredients as Required by the Law

One of the objects of the law is to inform the consumer of the presence of certain drugs in medicines. * * * In enu-

merating the ingredients, the quantity or proportion of which is required to be given upon the principal label of any medicinal preparation in which such ingredients may be present, the act uses only common names, and the permission to use any but such common names for any ingredients required to be declared upon the label is neither expressed nor implied in any part of the law.

The term used for acetanilide is "acetanilide" and not phenylacetamide. No reference is made to the use of the chemical formula in designating the presence of chemicals. The words "chloral hydrate" appear in the act, but not the chemical name trichlorethidene glycol. It can readily be seen that if the act were not closely adhered to in this connection there would soon be such a confusion and multiplicity of names and phrases that one of the objects of the act would be defeated.

The names to be employed in stating the quantity or proportion of the ingredients required by the act to appear on the label of all medicinal preparations containing same are—

First. Those used in the law for the articles enumerated; example, "alcohol," not "spiritus rectificatus."

Second. In the case of derivatives: (a) The name of the parent substance used in the act should constitute part of the name; example, "chloral acetone," not "trichlorethidene dimethyl ketone." (b) The trade name, accompanied in parentheses by the name of the parent substance; example, "dionine (morphine derivative)."

Third. Names of preparations containing the name of some ingredient used in the act. In such cases the name used in the act should constitute the first portion of the name of the preparation. (See F. I. D. 55.)

Fourth. Common names (such as laudanum, Dover's powder, etc.) of preparations containing an ingredient enumerated in the law, provided such name or names are accompanied in parentheses by some such phrase as "preparation of opium" or "opium preparation," followed by the number of minims or grains, as specified in the regulations; for instance, "laudanum (preparation of opium), 40 minims per ounce."

JAMES WILSON,
Secretary of Agriculture.

WASHINGTON, D. C., March 13, 1907.

(F. I. D. 57.)

PHYSICIANS' PRESCRIPTIONS

The Status of Packages Compounded According to Physicians' Prescriptions and Entering into Interstate Commerce

Packages resulting from the compounding of physicians' prescriptions under the food and drugs act are the subject of many queries, of which the following are representative:

If a druggist compounds a physician's prescription and sends it into an adjoining State, will it be necessary to state upon the label the amount of alcohol, morphine, etc., that may be present?

Supposing a regularly licensed practicing physician has patients located in various States of the Union and supplies medicines to them through the mails, by express, and otherwise, do such packages come under the provisions of the law, and, if so, can the required information be given in pen and ink on the label?

We treat drug addictions on a very gradual tonic treatment reduction plan. For instance, if John Doe writes for information as to the home treatment for his addiction, I send him a symptom blank which contains, among other questions, an inquiry as to the kind of drug he uses, how he uses it, the length of time he has used it, etc. In addition to giving me a complete history of his case, he states he is using 10 grains of sulph. of morphine (each twenty-four hours), hypodermically or internally, as the case may be. In prescribing in his case I immediately put him on just one-half of the amount he reports as his daily allowance, combining same with a bitter tonic.

It is necessary for the reduction in drug cases to be made without the patient's knowledge. It is, of course, understood by all physicians that you can not trust a drug habitué to properly make his own reductions, for, as a matter of fact, if he knew to what extent I was reducing his daily allowance of opiates, he would imagine the reduction too rapid, he would get frightened, and would take to his former drug for relief. Treatment prepared in this way I do not think would come under the head of a proprietary preparation or a patent medicine, as I prescribe the contents of each bottle to meet the requirements of each individual patient. All instructions as to the conduct of treatment and the use of auxiliary remedies are given by letter; consequently there are no printed labels or cartons containing any claims concerning the efficacy of this treatment.

I would be pleased to have you inform me whether in your opinion I would be violating the pure-food law in any manner, shape, or form should I continue to label my preparations as I am now doing, and in having them prepared in — and forwarded direct to my patients in this and other States.

If a package compounded according to a physician's prescription be shipped, sent, or transported from any State or Territory

or the District of Columbia to another State or Territory or the District of Columbia by a compounder, druggist, physician, or their agents, by mail, express, freight, or otherwise, the label upon such package is required to bear the information called for by Congress. If, however, the patient himself, or a member of his household, or the physician himself carries such package across a State line, and such package is not subject to sale, it is held that such package need not be marked so as to conform with the law, because such a transaction is not considered one of interstate commerce.

The package may be marked so as to comply with the act by either stamp, pen and ink, or typewriter, provided all such written matter is distinctly legible and on the principal label, as prescribed in Regulation 17.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

(F. I. D. 58.)

The Labeling of Products Used as Foods and Drugs as Well as for Technical and Other Purposes

Frequent requests for information relative to the proper labeling of products bearing the names of foods and drugs, but used also for technical and other purposes, are received. The following are typical:

We will kindly ask you to advise us in regard to the new law that governs the line of oils. We manufacture a compound product, so-called "turpentine," which contains pure turpentine and a very fine petroleum product. It is used in most branches where pure turpentine is used, with the exception of medicinal purposes, for which we do not sell it.

We understand that if we were to sell any cotton-seed oil so branded as to indicate that it was intended to be used as a food, as, for example, under the brand "Blank Salad Oil," it would be necessary to observe the requirements of the law referred to; but we are in doubt and would be glad to have your opinion as to whether a sale or shipment of this oil (for lubricating purposes) under the ordinary trade brand of cotton-seed oil, and without anything to indicate that it was of a quality suitable for use as a salad oil, would subject us to the provisions of the act.

During personal interviews the question of marking chemical reagents has also been discussed.

Products used in the arts and for technical purposes are not subject to the food and drugs act. It is, however, a well-recognized fact that many articles are used indiscriminately for food, medicinal, and technical purposes. It is also well known that

some products employed for technical purposes are adulterated or misbranded within the meaning of this act. Inasmuch as it is impossible to follow such products into consumption in order to determine to what use they are finally put, it is desirable that an article sold under a name commonly applied to such article for food, drug, and technical purposes be so labeled as to avoid possible mistakes. The ordinary name of a pure and normal product, whether sold for food, drug, technical, or other purposes, is all that is necessary. Pure cotton-seed oil or turpentine may be sold without any restrictions whatever, whether such article is sold for food, medicinal, or technical purposes, but it is suggested that a cotton-seed oil intended for lubricating purposes, or a so-called turpentine consisting of a mixture of turpentine and petroleum oils, used by the paint trade, be plainly marked so as to indicate that they are not to be employed for food or medicinal purposes. Such phrases as the following may be used. "Not for Food Purposes," "Not for Medicinal Use," or for "Technical Purposes Only," or "For Lubricating Purposes," etc.

In order to avoid complication it is suggested that chemical reagents sold as such be marked with such phrases as the following: "For Analytical Purposes," or "Chemical Reagent," etc.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

(F. I. D. 59.)

National Formulary Appendix

The National Formulary is one of the standards recognized under the law. The question has been asked a number of times whether the appendix of this authority would be construed as part and parcel of the book itself. On page IV of the preface it is distinctly stated that the formulæ collected in the appendix of the National Formulary are "no longer designated as 'N. F.' preparations." This shows that these formulæ are not integral parts of the book under the law, which covers only those products of the National Formulary recognized as such by this authority. By this it is understood that if a drug product is sold under a name contained in the appendix of the National Formulary, it will not be necessary for such product either to conform to the standard indicated by the formula or to declare upon the label its own standard strength, quality, and purity if a different formula is em-

ployed in its manufacture. Such articles are, however, subject to the law in every other respect, as is the case of other medicinal products not recognized by the U. S. Pharmacopœia or National Formulary.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 13, 1907.

(F. I. D. 62.)

Guaranty on Imported Products

Many inquiries of the following type have been received by the Department:

We will take it as a favor if you will advise us if (since our goods are all imported and so must pass the custom-house before being sold) the fact of their having passed the customs authorities and the Department of Agriculture examination is not in itself a guaranty that they conform with the pure-food laws as defined by the act of Congress approved June 30, 1906, entitled "An act for preventing the manufacture, sale or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, liquors," etc.

The Department makes a systematic inspection of imported foods and drugs when they arrive at the custom-houses; and while such inspection does not include an examination of samples taken from every package of the aforesaid articles, it is sufficient to indicate that the article is suitable to enter the country and be sent into interstate commerce as long as it retains its identity in the unbroken package. If imported foods and drugs are taken from the original packages and repacked, they become subject to inspection as if of domestic origin, and the persons handling and selling said articles are not immune from prosecution in the event that a subsequent inspection discloses that all or any portion of said foods or drugs are adulterated or misbranded according to the provisions of said statute or the regulations made thereunder.

Only a wholesaler, jobber, manufacturer, or other party residing in the United States can give a guaranty within the meaning of said act. A foreign manufacturer or other foreign dealer can not give the guaranty prescribed in said law, nor can the agent of such foreign manufacturer or dealer give said guaranty unless such agent be a resident of the United States and unless he actually sells the goods covered by the guaranty.

The person who owns and sells imported goods can make a guaranty for the purpose aforesaid, though the goods may be shipped

directly by the firm of whom the guarantor buys them to the customer of the guarantor.

JAMES WILSON,
Secretary of Agriculture.
WASHINGTON, D. C., March 25, 1907.

(F. I. D. 63.)

Use of the Word "Compound" in Names of Drug Products

Many inquiries are received concerning the use of the word "compound" in names of drug products. There seems to be a general impression that this word can be applied as a corrective to many misbranded products. The following extracts serve as examples:

You have on file our formula (active agents—croton oil and cascara), and we would ask if it is possible to call the same "castor pill compound" and comply with the regulations?

This liniment has been in use for forty years. The ingredients, each separately and collectively, are sanitary and highly curative. The one ingredient after which it was named happens to be present in the least proportion. Can not the compound be called by the name "Compound Sassafras Cream?"

An eminent jurist writes:

I shall be glad to know the views entertained by your Department as to when a druggist has satisfied this act by a label or printed matter which he puts on the package or bottle in relation to a compound. Take, for example, the product put on the market as Cascarin Compound, or Aloin Compound. I am impressed with the fact that such label must have added a statement as to what the other ingredients of the compound are. This may not mean, and probably does not mean, that the formula must be given or the exact proportions, but a purchaser has the right to know what is in the compound in order to determine for himself, or to receive proper advice, as to whether it is safe to be used.

In no case can a preparation be named after an ingredient or drug which is not present. The word "compound" should not be used in connection with a name which in itself, or together with representations and designs accompanying same, would be construed as a form of misbranding under the act.

It is held that if a mixture of drugs is named after one or more but not all of the active medicinal constituents (not vehicle) present in a preparation, the word "compound" can be used in connection with the name, (a) provided the active constituent after which the product is named is present in an amount at least equal to that of any other active medicinal agent present. Example: If it is desired to make a mixture consisting of oil of sandalwood, balsam copaiba, and castor oil, and call this product

"Oil of Sandalwood Compound," the oil of sandalwood should constitute at least $33\frac{1}{3}$ per cent of the entire mixture. Or (b) provided the potent active constituent after which the product is named is present in sufficient amount to impart the preponderating medicinal effect. Example: If a product is named after the active constituent, strychnine, the strychnine or one of its salts should be present in sufficient amount to produce the preponderating medicinal effect of the preparation. Or (c) provided the complete quantitative formula, as outlined in the United States Pharmacopœia and National Formulary, be given on the

principal label. A declaration of the complete quantitative formula, however, does not exempt the manufacturer or dealer from giving the information required by the act in the manner prescribed by the regulations. **The ounce shall be the unit.** The amounts of the ingredients present (excepting alcohol, which is to be stated in per cent) shall be given in **grains or minims**, and if it is desired the **metric equivalent may be given in addition.**

JAMES WILSON,
Secretary of Agriculture.

WASHINGTON, D. C., *March 23, 1907.*



This cut shows the Moore Drug Co.'s new store at Kearny and Sacramento Streets, this city. It is conceded to be the handsomest strictly drug store in the state (and that means the entire coast).

The interior of the store is finished in genuine solid mahogany and fitted with crystal plate show cases, Italian marble base, mirror backed and solid mahogany frame. A mezzo gallery of solid mahogany studded with frosted electric lamps runs the full length of the store. The floor is covered with mosaic marble, with Italian marble in the entrance. The prescription department is divided from the

main store by very handsome stained glass windows, executed by the best artists in this city. Mr. Moore, the energetic proprietor, whose picture is shown in the foreground, was formerly located in Eureka and is the first man to open a drug store in the heart of the down-town burned district.

Too much can not be said of a man who will risk his money in such an undertaking in that district, and he is doing better than he expected, which is an evidence of his foresight.

It will pay you to keep an eye on him and profit by his energy.

BOOK NOTICES AND REVIEWS

Physician's Manual of the U. S. Pharmacopœia and National Formulary, by C. S. N. Hallberg, Ph. G., M. D., Prof. of Pharmacy, School of Pharmacy, University of Illinois, and J. H. Salisbury, A. M., M. D., Assistant Prof. of Medicine, Rush Medical College, Chicago.

The book contains 198 pages and is cloth-bound. Single copies, post-paid, 50 cents. **Published by the American Medical Association, Chicago.**

The title might be misleading as to the size of the book, which is very small and compact. It is one of the best little books of its kind that we have had the pleasure of reviewing. Without going into detail, it contains in a nutshell the substance of the two great books, the Pharmacopœia and National Formulary, and in such a form that the physician can tell at a glance, the preparations, dose, etc., of the drug he desires to use. It would be a very exceptional case when a physician would be justified in using drugs or preparations not mentioned in the two great works. Even a therapeutic index is given that in case of doubt a ready reference will give a list of desirable drugs. The names of all official drugs and preparations appear in capital letters, while National Formulary preparations appear in small blackfaced type.

It is to be regretted that a copy of this little book will not find its way into the hands of all physicians and medical students, as it is highly to the best interests of modern medicine and pharmacy that it should.

Every pharmacist will be interested in obtaining a copy, that he may invite physicians' attention to it. Indeed, it would be money well spent to present a copy to each physician, calling attention to the ease with which these preparations can be prescribed and calling special attention to preparations taking the place of proprietaries, the profit upon which, sooner or later becomes nil. The American Medical Association has, and still is, making heroic efforts in behalf of scientific medicine and pharmacy, and it is to be hoped pharmacists who should be vitally interested will lend interest and assistance at every step.

H. B. C.

A Manual of Materia Medica, by E. A. Ruddiman, Ph. M., M. D., Professor of Pharmacy and Materia Medica, Department of Pharmacy, Vanderbilt University, Nashville, Tenn. 12-mo., about 400 pages. **Lea Bros. & Co., Philadelphia.**

It takes courage to present a book in this field which has so recently been covered with good publications. However, Prof. Ruddiman is an able teacher and doubtless from experience feels that a publication of this character has a definite field of usefulness. The arrangement and lack of illustration will not meet the approval of all teachers of this subject. In the description of drugs, the macroscopic structure only is treated.

The subject-matter of the book is well presented, and each drug is treated briefly and concisely. The maximum and minimum doses are given instead of the average dose.

The book is designed especially for students of pharmacy, but it could be used very satisfactorily by medical students while acquainting themselves with the characteristics of crude drugs.

Because of the brevity and conciseness, the book will meet with the hearty approval of many students, and it can cheerfully be recommended to the profession.

H. B. C.

Dr. H. H. Rusby, dean of the New York College of Pharmacy, has been appointed an official expert in drug products by the government. Dr. Rusby's appointment, however, is made with a view of obviating the disputes which hitherto have arisen between the Department of Agriculture, the customs and drug importers. His duties will largely consist in deciding whether or not many of the importations are true to name and suitable for use in medicinal preparations.

Query—What is the longest word in the English language? Here is one—Benzoyl-methyl-tetra-methyl-para-oxy-piperidine-carbonic-acid-hydrochloride-Alpha-Eucain—78 letters. Smiles, because the distance between the first and the last letter is a mile.—Meyer Brothers, Druggists.

Personals

Val Schmidt has reopened at his old location. The new store is one of the finest in the city, and shows in its arrangement unmistakable evidence of the Schmidt ability from both a practical and artistic standpoint. The fixtures and furnishings are of the highest class of material and workmanship and the whole presents a design of perfect harmony. A detailed description, with cut of the store, will be published in the October issue.

The Economic Drug Co. will shortly open a branch store at 502 Valencia Street. Under the able management of Dr. Muench, a successful career should be assured.

Dr. H. H. Hart, of 1421 Post Street, has disposed of his drug business, but will continue the practice of his profession.

Dr. Albert Berger of the Hornung Pharmacy, Twenty-second and Guerrero Streets, has sold his drug business to W. M. Hatch, who will be pleased to see his friends at the above address. The doctor will devote his entire time to the practice of his profession.

Leon De Ville, class of '04, P. & S., who is now a junior in the Medical Department, is visiting his friend, Dr. Samuel Goldman, who is one of the internes of the City and County Hospital of Sacramento.

Mrs. May Birch, class of '04 P. & S., who now has a drug business in Orland, Colusa County, has been visiting friends in this city. Mrs. Birch knows how to take hold of the business end and make a success of it.

After over thirty years of continuous service, J. D. Gray has sold the Model Drug Store of Stockton to C. F. Bertholf of Los Banos. Mr. Gray is the oldest resident pharmacist in that city, and his drug store was the second oldest institution of its kind there, the Holden Drug Company being the oldest. Mr. Bertholf will also manage his store at Los Banos. Mr. Gray will move to Oakland.

The Stewart and Holmes store of Tacoma, Wash., owned by the Puritan Drug Co., was recently sold to G. E. Hamaker of Chehalis, Wash. The stock and fixtures will be moved to Chehalis. The new store will have a prominent location on Main

Street. The store will be large and modern in every respect and do both wholesale and retail business. May success attend the new enterprise.

W. W. Breitenmann, who owns a chain of drug stores in Denver, Cripple Creek and Victor, Colo., will start a drug store in the old postoffice building, Goldfield, Nev., as soon as the postoffice has been moved to its new quarters.

The University Pharmacy, now located in the Francis Shattuck Building, Berkeley, will shortly move into new quarters in the California Hotel Building, corner of University and Shattuck Avenues.

A new corporation, viz: The Pearson Drug Company, has made its appearance in Los Angeles. Capital stock of the company is \$25,000.

C. M. Shelton, of Goldendale, Wash., recently spent a few days' outing at Status Creek.

Dr. C. H. Law of North Powder, Oregon, has sold his drug store to Dr. Clarke E. Saunders of Union.

Dr. Thompson of Elbe, Wash., will open a drug store at that place about September 20th.

O. P. Downing, importer and druggists' sundries of Oakland, Cal., was a visitor at San Jose recently.

O. G. Trautz of Benicia Cal., who is interested in a dredge mining company in Shasta County, and is president of the company, sold his drug store in that city to J. C. Clayworth of the Benicia Pharmacy. Mr. Clayworth will remain for the present in charge of the Benicia Pharmacy on the corner, where he is partner with Geo. H. Martin. The firm of Martin & Clayworth will remain proprietors on the corner. We are sorry to lose Mr. Trautz from the profession, even temporarily. However, we wish him great success in his mining enterprise.

A. V. McComb, recently with the Sun Drug Co. of Pasadena, is now with the Edmiston Drug Co. at 3400 Vermont Avenue, Highland Park.

E. A. Henderson, who has been in the employ of Miss Nina C. Edmiston, druggist, of Jefferson and Vermont, for a number of years, has accepted a position with Mrs. C.

E. Hollister of Adams and Main, formerly E. G. Binz's pharmacy. We wish Mr. Henderson success in his new field.

Dr. N. M. Miller has sold his drug store at Phoenix, Arizona, to Dr. A. L. Boehmer, his former manager. Dr. Miller, who has accumulated a snug little fortune, will come to California, where he has been offered a very attractive position.

M. A. West of Thornton, Wash., had the misfortune in the early part of last month to lose his store and home by fire. The loss is partially covered by insurance. We sympathize with Mr. West in his recent loss.

The Lenhart Drug Company of Truckee, Cal., has incorporated with a capital stock of \$20,000, divided into 20,000 shares. The directors are Dr. David Shoemaker and Gertrude C. Shoemaker of Oakland; Albert Lenhart of Truckee, and Dr. G. Waldo Bryant and Dr. J. Gordon Mackay, also of Truckee. The capital stock is all paid up.

In **Bellingham, Wash.**, the physicians have started a crusade against some of the druggists who have been extensively given to the practice of advertising "cure-all-and-quick" nostrums. The "papering" of the town with such literature was severely scored.

The Dawson Drug Co. of San Luis Obispo, Cal., which has already one of the finest stores on the Coast, is making alterations greatly increasing the capacity. The new furniture will be of solid oak and in harmony with the present artistic fixtures. This firm has been unusually successful, and under the able management of Dr. Byron F. Dawson, the future of the firm is assured.

The friends of Charley Holt of Walla Walla, Wash., were much worried over his continued absence. Mr. Holt was employed at the Shellon Pharmacy. We hope that when word is secured it will only be in the form of a pleasant surprise.

C. W. Powell of Dayton, Oregon, has sold his drug stock to R. L. Harris.

A. A. Knott & Son of Vallejo, Cal., are the owners of one of the finest stores in that city, and are doing a splendid business.

E. A. Allen, who has recently been employed in a drug store in Sand Point, is in Wardner, Idaho, and will take charge of L. A. Smith's drug store. Mr. George Staub, who has had charge of the store for several months, will leave for Spokane.

Frank Benedict Flemming, Ph. C., '06, University of California, was recently married at San Jose to Miss Norma E. Morey,

a prominent society girl and daughter of J. J. Morey, cashier of the Watsonville Rajaro Valley Bank. Among the number of presents to the young couple was a check for \$5,000 from the bride's grandfather. **The Pacific Pharmacist** extends congratulations.

A. T. Hill's drug store at La Grande, Oregon, was robbed August 9th. Entrance was gained by cutting through the rear door.

Dr. R. S. Oakford, President of the State Board of Pharmacy, was operated on for appendicitis at the Long Beach Hospital, August 15th.

F. L. Chapman has started a new manufacturing enterprise at Watsonville. He is planning to manufacture baking powder, tooth powder, flavoring extracts, and toilet articles.

Clarence Powell, one of the promising young pharmacists of Redding, recently spent a pleasant day at Dunsmuir. When Clarence becomes tired of making pills he finds pleasure in using his camera.

Fred L. Merriman, Ph. C., is calling upon the trade in San Francisco and vicinity in the interests of Armour & Co., Chicago. Mr. Merriman is well versed in his subject and makes a first-class salesman. We acknowledge a pleasant call and also a subscription to **The Pacific Pharmacist**.

The White Drug Company opened their doors for business August 21. The store is located at the corner of Geary and Fillmore Streets. It is said to be one of the handsomest stores in San Francisco.

The J. J. B. Argenti store, for many years at 1501 Waller Street, San Francisco, moved into new quarters September 1, at corner of Cole and Haight Streets.

Dr. H. M. Simmons gave the opening address at the California College of Pharmacy. The title of the address was, "The Effects of the Pure Food and Drugs Law Upon the Retail Druggist."

Harold L. Lyon, M. S., Ph. D., until recently assistant professor of botany at the University of Minnesota, paid us a pleasant visit while en route to Honolulu, where he has accepted the position of pathologist and physiologist to the Hawaiian Sugar Plantation Company. Dr. Lyon is an able scientist and the company is to be congratulated upon securing his services.

Elmer Jacob, Ph. C. '07, is now with the Owl Drug Company at Sixteenth and Mission Streets, San Francisco.

The Santa Clara County Druggists Association has been disbanded.

D. Powell, of New York, died August 26. He was the first to demonstrate that alcohol was an important antidote for carbolic acid poisoning. He performed many experiments upon himself, and it is supposed this materially shortened his life.

Dr. Albert Schneider, associate editor of **The Pacific Pharmacist**, had a pleasant vacation at the Minnesota Seaside Station, Vancouver Island, B. C.

The enterprising druggists of Santa Clara County have organized a Buying Club.

The W. S. Merrill Chemical Company, Cincinnati, Ohio, well known throughout the United States as manufacturers of high-class ethical preparations, have recently moved their San Francisco headquarters to 20-22 Van Ness Avenue, where they will have more room for their constantly growing business, and where they can take better care of the trade. They carry a full line of pharmaceutical preparations, solid and fluid extracts, elixirs, etc., in addition to their own chemicals and specialties. Their salicylic acid preparation, sodium salicylate and Elixir Ferri Salicylatis are preferred by very many practitioners to those of any other maker, and we think they have done well to move to an accessible location where druggists can easily obtain supplies of their goods.

Dr. E. C. Smith, of Fairfield, Wash., has sold his drug store to Dr. White, of Pullman.

R. G. Evans, for some time employed at Dr. Smith's store in Fairfield, Wash., will shortly move to Seattle.

W. F. Fairchild, of Placerville, was in the city a short time ago with his son, Leon, who entered the California College of Pharmacy.

W. B. Alford, of Eureka, was in San Francisco on a business trip, and he reports business prosperous in his town.

A. Burger, for many years in charge of the Palace Pharmacy, Riverside, has been forced to give up his position owing to ill health, and has purchased a ranch, where he expects to make his future home.

Edward Dudley, of Long Beach, is now at the Palace Pharmacy, Riverside, taking the place of Allen Burger.

Bernard Lustig, former proprietor of the Pacific Pharmacy, Long Beach, is, we are sorry to learn, suffering from rheumatism at his home in Los Angeles.

George D. Prigmore, of Chehalis, Wash., was appointed Drug Inspector by State

Pure Food Commissioner Davies. Mr. Prigmore is well and favorably known throughout that part of the State, and is a graduate of the University of Washington, Department of Pharmacy, '92. We are glad to hear of his appointment, and are sure that he will not disappoint his friends.

G. E. Hamaker has opened a new store in Chehalis, Wash., with one of the best stocks of goods to be seen in that part of the State.

E. P. Squire, of Ukiah, can now boast of the handsomest drug store in Mendocino County, as he has recently opened his new store opposite the Cecille Hotel.

J. W. Kell, for years in charge of Morse's Pharmacy in San Mateo, is moving to Fort Bragg, where he expects to establish himself in business. San Mateo's loss is Fort Bragg's gain, and he carries with him the best wishes of his friends.

J. O. Biglow, of Tuolumne, can find time to take a little spin to the neighboring towns once in a while.

R. W. Swanton, of San Francisco, is in Yreka, having accepted a position in Avery's drug store. Mr. Swanton is a graduate of the California College of Pharmacy, and has had several years' experience in the business.

Dr. A. M. Parker, of San Jose, was in San Francisco taking a few days' vacation.

Charlie May is a happy pharmacist since young Charlie made his advent about three months ago, and says that he will make a first-class pharmacist of the boy.

Chas. Case of the Atlas Pharmacy, Twenty-third and Valencia Streets, has returned from his summer vacation, looking much browner and with one of those happy smiles which always tell of the pleasant times one has had when free from care and enjoying the mountain breezes.

Roy Wayland of Clifton, Ariz., manager of the A. C. drug stores, was a visitor at Morenci recently, where he will assist arranging the fixtures and stock of the Longfellow store.

W. S. Prettyman & Son, managers of the Highland Park Company, have moved into a handsome new store in the Stewart Block, Pasadena Avenue. The company now has one of the best equipped stores in Highland Park, Cal.

Lindsay Bros. have closed their drug store in Woodland and have moved the stock and some of the fixtures to Arbuckle, Cal.

Miss Florence Myers and **Miss Florence Hedges** have the distinction of conducting the Fern Pharmacy at San Bernardino, Cal. This pharmacy is so unique and well managed that it has caused some flattering press notices to be received recently.

Dr. M. D. Pratt, a recent licentiate in pharmacy, will from now on conduct the Fall River Drug Store at Fall River, Cal.

The store of **N. Schwartz**, corner of Buchanan and McAllister Streets, was robbed during the early morning hours, August 15th. Perfumes and cigars made up most of the booty. Fortunately for the proprietor little cash was obtained.

D. W. Kirkland of Los Angeles, president of the Owl Drug Co., is entertaining a niece and nephew from Honolulu.

R. L. Prouty, a prominent pharmacist of Tonopah, Nev., recently visited California for the purpose of purchasing a home. He will, however, continue his business at Tonopah.

Victor Moffatt recently visited Spokane, Wash., where he expects to establish a drug store.

Bair & Godfrey have sold their drug store at Sunnyvale, Wash., to **George Gimel** of Tacoma. **Fred Miles** of Tacoma will have charge of the business. May the new firm have continued success.

R. A. Davidson, manager of the Tonopah Drug Company, resigned his position recently to go into the mining business, and has been succeeded by **L. E. Inman** of San Francisco. We have no doubt but that the company will continue to prosper.

The **Pioneer Drug Store** at 316 Georgia street, Vallejo, Cal., has completed its sixtieth year in business. It was under the ownership and management of the late **James Topley**. The high class service which has been characteristic of the firm for over half a century will be continued under the management of **J. H. and W. H. Topley**.

Miss Mable Thimmiesch and **R. M. Ers-pamer**, both of Georgetown, Wash., were recently married at Tacoma. Mr. Ers-pamer is proprietor of the Georgetown Pharmacy.

Klotz & Leachman are the owners and managers of a prosperous drug store in Vallejo. The firm is known as The Vallejo Drug Company.

F. L. Ordway of Monterey, Cal., is one of our prosperous pill rollers. He has re-

cently purchased a new automobile. Success to our Monterey friend.

J. D. Sherrick has recently opened a drug store at Port Townsend, Wash.

O. D. Baker has taken charge of **Herman Dickerman's** drug store at Nevada City, while Mr. Dickerman takes a trip to Oregon. Mr. Baker formerly conducted a drug store in the capital city. He was located for a year at Grass Valley where he had charge of the **George Howe** store.

The **Lewis Drug Company** of Ely, Nev., opened, recently, its new quarters on Aultman Street, just east of the Northern Hotel. The new store is modern in every respect and in keeping with the progress of the city.

A change has taken place in the **Young Drug Company** of Petaluma. **Louis Dean**, who has heretofore held a half interest in the store, has sold his interest to **Harry Herold** of San Francisco. The store will in future be conducted by **Cyrus Young** and **Harry Herold**. The firm name will be the **Young Drug Company**. Mr. Herold has for years been the traveling salesman for **Redington & Co.** We wish the new firm great success.

W. H. Hatch has bought the **Rialto Pharmacy** at Twenty-second and Guerrero Streets. Mr. Hatch was head clerk for **B. K. Bowerman** for a number of years, and recently with **Bowman & Co.**, Oakland.

Lou Harris has bought the **Sunset Pharmacy** on Haight Street, and will take charge on the 10th. He was for years head clerk for **Lengfeld's**.

Glenn Nelson is back to his work again after a long spell of sickness.

Dr. F. F. Johnson has returned, after a month's vacation to **Paraiso Springs**.

Ed Ayers has returned from **Catalina Island**. He reports having a good time and caught some big fish.

R. W. Coffin, for many years at Sixteenth and Valencia Streets, died in Alameda.

W. I. Hawley and family are spending their vacation in Los Angeles. Mr. Hawley is **Carl Stange's** right-hand bower.

Carl F. Stange is back to hard work again, after spending two weeks around **Novato**.

Frank Allen has opened up a new store on Twentieth and Illinois Streets.

I. M. Parry is now manager of the **Key Route Pharmacy** in Oakland. Mr. Parry

has been with Bowman & Co. for the past eight years, and we know no better selection could be made.

Dr. B. T. Mouser has returned from a month's vacation in the southern part of the State, and is feeling much better. Miss Nelson made business boom during his absence.

L. J. Westlake has opened his new store on San Pablo Avenue, and reports everything satisfactory. "Why shouldn't he?"

Levy & Wheeler have taken in the next store to them, and are enlarging again. They say the larger the store, the more business they do.

J. Booher is with the Maritime Drug Company.

J. J. Jennings, the popular manager of the Maritime Drug Company, will marry Miss M. Rossi, of Visitation Valley, about the first of September.

A. Duprey is rolling pills now for A. Zabaldano & Co.

Johnnie Seibold and Clarence Holcomb have opened up a new store on Pacific and Jones Streets, known as the Pacific Pharmacy. They say everything is moving along fine. They have both had the best of experience in big stores and should meet with success.

A. H. McCoy has taken charge of Weaver's Pharmacy at Cole and Frederick Streets, about the first of September. Mc has always a smile, so he should have all the ladies' trade in that section.

N. Schwartz's store was entered by burglars last week, and he reports about \$500 loss.

The Economic Drug Company will open a new store at the corner of Valencia and Sixteenth Streets.

E. M. Fowler, manager for Lengfeld's, is the proud father of a girl. He has the smile that will not come off.

Henry A. Gerdes, the most popular salesman that ever struck the Coast for Bauer & Black of Chicago, is taking a two weeks' vacation in the mountains near Ukiah.

Henry is a great fisherman, and he says after he has caught all the trout in Eel River he will sell more Blue Jay Corn Plaster than B. & B. can furnish with the present force.

W. L. Bourns will open another new store on East Street, between Mission and Howard. Business must be fine, as he has four stores now.

A. A. Kessler, the most popular druggist on Haight Street, will take his well-earned vacation around Lakeport. There must be some attraction up there for Anthony.

George Dahlbender, at one time the Kearny Street pharmacist, but now occasionally giving a helping hand to his old friend, Dr. W. B. Kearney, Twenty-third and Valencia Streets, has the Pacific Coast agency for one of the best filters on the market. "The Kneuper Filter" delivers three hundred gallons of germ-free, star-bright and sparkling water, under a pressure of twenty pounds to the square inch. The filter must be seen in operation to appreciate its value. The St. Francis and Fairmont Hotels in this city and the Key Route Inn and the Judson Manufacturing Company of Oakland have the filter in operation and are delighted with the result. We wish him success in his new enterprise.

Drug Store, with an established trade of over twenty-five years, for sale at a figure which will make it an object. Town has a population of 1,000; is county seat of Modoc County, and railroad just building in. Can guarantee this a good business opportunity. Address R. A. Laird, Alturas, Cal., or **Pacific Pharmacist**, San Francisco, Cal.

Albert Lewek, the handsome young pharmacist of the Hornung, Flint & Crane Drug Company of Marysville, with his friend, Roy Cope, are down enjoying the cool breezes and visiting friends in this city and Oakland.

Fort Bidwell will shortly have a new drug store.

A. H. Porter, of Cœur d'Alene, Idaho, expects soon to have one of the finest drug stores in that district.

Boxes, Labels
Cartons, Etc.

Order by Mail Now
From
F. C. FELTER
228 Lumber Exchange Building
Portland, Oregon
Representing Pictorial Printing Co., Aurora and
Chicago, Ill.

Drug News

Langley & Michaels Company Moves

Shortly after this issue reaches our subscribers, Langley & Michaels Company will have removed to their old location at First and Jessie Streets. No expense has been spared to make the new building and its equipment as nearly perfect as possible, and it may be said, without exaggeration, that the results exhibit a plant which finds no superior in this country, and is acknowledged to be one of the "show buildings" of the reconstructed city. The general arrangement of the different departments, together with the new time-saving devices which have been adopted, must be seen to be fully appreciated. With these greatly improved facilities, better service and a more rapid dispatch of orders is assured. The building, which is of seven stories, three more than the former one, furnishes ample room for the largely increased business. Its construction is Reinforced Concrete of the highest class, making it as nearly fire-proof as is possible. Further protection against fire is afforded in an effective automatic sprinkler system, hose reels and portable appliances, reinforced by an independent water supply. The rapidity with which this house has rehabilitated and on a grander scale returned to the former site, establishes a record equalled by few. Their energy and spirit of progress calls for the highest commendation, and without doubt will receive the substantial approval of the trade of the Pacific Coast.

Mr. Harry M. Alden, formerly with the Nelden-Judson Drug Company, of Salt Lake City, is now with the Cutter Laboratory, Berkeley, Cal., telling the trade about the goodness of their serums and vaccines.

Drug Clerks' Association of San Francisco.

The Drug Clerks' Association of San Francisco have had their charter extended to include California, and have commenced the work of adding to its membership the drug clerks throughout the State. A majority of the clerks in Alameda County, including the cities of Oakland and Alameda, have joined the association and are enthusiastic workers to help the good cause along. It is the intention of the association

to vigorously advance the work step by step, until the whole State has been thoroughly canvassed and every drug clerk has been made acquainted with the good there is to come to him by joining the association.

The work already accomplished by the association in the cities of San Francisco, Oakland and Alameda are living evidences of what has been done for the benefit of the drug clerk. About ninety per cent of the drug clerks in the above named cities are now members and every meeting night brings an addition to its ranks.

Let every drug clerk throughout the State interest himself in the good work and write to the secretary of the association for a copy of the constitution and by-laws, so that he or she may become acquainted with the principles governing the advancement.

The druggists of Stockton recently tendered a complimentary banquet to two of their members on the eve of their departure from the city, Mr. J. D. Gray, who has been in the drug business in one store for the past twenty-seven years, has retired and will make his home in Oakland, and Mr. Kohler, who has moved to San Francisco, where he is in a wholesale house. The menu card was a novelty. At the plate of each guest was an ordinary box, such as druggists put powder prescriptions in. It was suitably labeled with the name of the patient and the name of the doctor. Upon opening the boxes they appeared to be filled with powders, but on closer scrutiny it appeared that a long strip containing the bill of fare had been neatly folded in. Another original conception was the serving of the wine in graduated glasses, such as druggists use in concocting medicines. Among those present were J. D. Gray, J. P. Kohler, J. A. Sanford, Will Hobin, M. E. Lubosch, P. Dentoni, Joe Campodonico, J. A. Patterson, C. S. Bartholf, George Ditz, H. McComas, George Colpe, Alfred Jackson, Fred M. Braddock, Ambrose O'Neil, and several newspaper men.

For Sale.—Drug store in a prosperous and rapidly growing town in Sonoma County. Answer to C. Zetterlund, 711 Sansome Street.

College of Physicians and Surgeons, Department of Pharmacy

All the departments in this college, Medical, Dental and Pharmaceutical, will open on the 16th of this month, and the indications are very encouraging for good sized classes.

The constant demand for doctors, dentists and pharmacists throughout the Pacific Coast remains unsatisfied, if one is to judge from the letters received by the Dean asking to be placed in communication with graduates of the different departments.

That first-class pharmacists are in demand all over the Pacific Coast is a well-known fact, and that the Eastern States are asking for a higher grade of pharmacists is evident from the number of failures noted in the journals of those who take the examinations. The California law demands one of the highest grades, as regards drug store experience, in the United States, that of five years' actual work in a drug store where physicians' prescriptions are compounded. Every teacher of pharmacy and every pharmacist knows that the drug clerk who has had a pharmaceutical training in a college of pharmacy, together with the drug store experience, is a much better pharmacist than the boy who has had only drug store work, and in these days, when so much attention is given to the commercial side of the business, the young man entering a drug store is not given the instructions in pharmaceutical technique that is required to develop the apprentice into a first-class pharmacist.

Reviewing the questions of the different State boards of pharmacy, one is strongly impressed that a certain amount of technical knowledge is required of the pharmacist to pass their examinations, and this knowledge is not easily acquired in a drug store of the present day, for the demand upon the apprentice's time is such that little

opportunity is given him to study, and less attention is given to his questions upon the scientific side of the drug business. There remains but one thing to be done, and that is to take a course in a pharmaceutical college, where the technical, together with the practical, side of pharmacy is given.

We wish to call particular attention to the advertisement of the Tongaline Preparations and Ponca Compound, which have been standard remedial agents for the past twenty-five years with the medical profession, and are now being more extensively advertised than ever.

Druggists need have no hesitancy in carrying a stock of Tongaline Liquid, Tongaline Tablets, Tongaline and Lithia Tablets, Tongaline and Quinine Tablets and Ponca Compound, for which there is an old and well-established demand, and which are carried in stock by all of the wholesale druggists on the Pacific Coast, any of whom allow 5% discount on \$16 lots of these remedies, assorted if so desired.

Wanted.—Drug clerk; must have had active prescription and counter work experience; must be free from the liquor, "M. & C," and the cigarette habit; a good and permanent position to the right man. Address this office.

For Sale.—A first-class drug store in one of the most prosperous small towns in Sacramento Valley, doing a cash business of \$7000 last year, with no credits. Rent, light and water only \$36 a month. Established five years. Owner wants to retire, as he has been in business fifty-two years. Price, \$4,000 cash. Address this office.

For Sale.—Bush Adding Machine, cost \$75; will sell for \$35. A three-drawer counter cash box, cost \$40; will sell for \$20. Holden Drug Co., Stockton, Cal.

WANTED.—A position by a strictly first-class prescription pharmacist, registered in California and Nevada; over 20 years' experience in drug business and all of its accessories; married, temperate and of good habits. Only those needing a first-class man and who are willing to pay good wages need reply. Address this office.

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

"The Market."

Few important changes in the drug market have taken place since our last issue. Below will be found a summary of these. We note particularly an advance of 1c in glycerine and 2c in alcohol, and a considerable decline in camphor.

Advanced.	Declined.
Alcohol	Balsam Peru
Arnica Flowers	Balsam Copaiba
Balsam Fir	Camphor
Codeia	Cocaine
Cocoa Butter	Guarana
Cotton Root Bark	Oil Cloves
Dragons Blood	Oil Peppermint
Foenugreek	Menthol
Glycerine	
Golden Seal Root	
Oil Anise	
Oil Lemon	
Oil Rose	
Oil Wintergreen	
Saffron Valentia	
Senega Root	

ACETANILID. 1-lb. cart. incl.....lb	36
Powd., 1-lb. cart. incl.....lb	36
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....lb	20
5-lb bottles, ".....lb	15
Glacial, M. C. W. lb	44
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure, Merck's.....oz	14
Arsenous, Lumps, Pure, Merck's.....oz	8
Arsenous, Powd., Pure, Merck's.....oz	8
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	60
Benzoic, from Toluol, Merck's.....oz	13
Benzoic, True from Benzoin, Merck's.....oz	15
Benzoic, English, Merck, 1-oz boxes.....oz	16
Benzoic, English, Merck's.....lb	2 24
Benzoic, Merck's, 1-oz cartons.....oz	12
Benzoic, Merck's. lb	55-65
Boracic, crys., M. C. W.....lb	18-20
Boracic, powd., M. C. W.....lb	18-20
Boracic, im. powd., C. P., 1-lb cart. incl..lb	28
Boracic, Squibb's, 500 gram.....	45
Boric, H. P., Merck's.....lb	28
Boric, powd., pure, Merck's.....lb	20
Boric, Impalp., powd., Merck's.....lb	28
Butyric, 100%, Merck's.....oz	27
Butyric, H. P. lb	2 14
Cacodylic, Merck's 1/8 oz	4 00
Camphoric, Merck's oz	49
Carbolic, Calvert's No. 1.....lb	2 00
Carbolic, Calvert's No. 2.....lb	1 50

Carbolic, 1-lb tin, M.C.W., gilt label.....lb	30
Carbolic, M.C.W., 5-lb can, gilt label.....lb	26
Carbolic, M. C. W., 10-lb can, gilt label..lb	25
Carbolic, M.C.W., 28-lb can, gilt label....lb	23
Carbolic, Loose, crys., Merck's.....lb	70
Carbolic, Silver Label, Merck's lb	31
Carbolic, Solution, 1-lb. bot.....doz	2 50
Carbolic, Crude gal	40-50
Chromic, 1-oz vials oz	15
Chrysophanic, true, M. C. W., 1-oz vials..oz	57
Cinnamic, H. P., Merck's oz	39
Citric, crys lb	65-68
Gallic, 1-oz cartons, Merck's oz	11
Gallic lb	70
Hydrobromic, conc., 1-oz vials, M.C.W....oz	15
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34
Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10
Hydriodic (Sp. gr. 1.50), Merck's.....oz	42
Hydriodic (Sp. gr. 1.70), Merck's.....oz	52
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39
Hydrocyanic, U. S. P., Scheele's.....oz	35
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30
Hydrofluoric, 1/2s, g. p. bots. incl. " ..lb	1 80
Hydrofluoric, 1/4s, g. p. bots. incl. " ..lb	2 25
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19
Lactic, conc., 1-oz vials, M. C. W.....oz	12
Lactic, conc., 1s, Merck's.....lb	79
Lactic, dilute, 1-oz vials, M. C. W.....oz	8
Muriatic, carboys lb	3 1/4
Muriatic, 6-lb bots.....each	75
Muriatic, C. P., 6-lb bots.....lb	22
Muriatic, C. P., 1-lb bots.....lb	38
Nitric, carboys.....lb	8
Nitric, 7-lb bots.....ea	1 10
Nitric, C. P., 7-lb bots.....lb	22
Nitric, 1-lb bots. lb	40
Nitro-Muriatic lb	40
Nitrous, fuming lb	65
Oxalic. lb	14-16
Oxalic, chem. pure, M. C. W.....lb	30
Phosphoric, glacial, Merck's lb	64
Phosphoric, syrupy (85%) lb	55
Phosphoric, diluted, M. C. W.....lb	25
Phosphoric, M. C. W., U. S. P., 50%..lb	40
Phosphoric, glacial, 1-oz vials.....oz	11
Phosphoric, glacial, 1s, M. C. W.....lb	64
Picric lb	60-70
Pyrogallic, Resublimated, Merck's.....oz	27
Pyrogallic, Merck's, 1-lb cans.....lb	2 35
Pyrogallic, Merck's, 1/2-lb cans.....lb	2 45
Pyrogallic, Merck's, 1/4-lb cans.....lb	2 55
Pyrogallic, Schering's lb	2 50
Pyrogallic, Schering's 1/2-lb	2 60
Pyrogallic, Schering's 1/4-lb	2 70
Pyrogallic, Schering's, oz. vials.....oz	28
Pyroligneous gal	40
Salicylic, Merck's, 1-lb cartons.....lb	46
Salicylic, from Oil Wintergreen, Merck's.oz	44
Salicylic, Amorph., Merck's lb	46

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Salicylic, from Wintergreen, Merck's.....oz	44	Bromide, 1-oz vials, M. C. W.....oz	10
Succinic, Merck's, oz. bottles.....oz	1 24	Bromide, M. C. W. lb	46
Sulphuric, Aromatic lb	75	Carbonate. lb	15-18
Sulphuric, carboys lb	2-2 1/4	Carbonate, powdered lb	20
Sulphuric, 9-lb bottles each	1 00	Carbonate, C. P., Squibb's, 1-500 gram....	45
Sulphuric, C. P., 9-lb. bottles.....lb	22	Citrate, 1-oz. vials, M. C. W.....oz	15
Sulphuric, C. P., 1-lb bottles.....lb	38	Hypophosphite, 1-oz vials, M. C. W.....oz	21
Sulphurous, U. S. P., solution.....lb	25	Hypophosphite, M. C. W. lb	1 70
Tannic. lb	85-90	Iodide, 1-oz. vials, M. C. W.....oz	38
Tannic, H. P., Merck's lb	1 71	Muriate, lump. lb	14-16
Tartaric, crystallized lb	39-45	Muriate, gran. lb	10-12
Tartaric, powdered lb	39-45	Muriate, gran., pure, 1-lb cartons.....lb	20
Tri-chlor-acetic, Merck's oz	32	Muriate, powdered, pure.....lb	19
Valerianic, Merck's oz	20	Muriate, Po.....lb	19
ACONITINE. Amorphous, Merck's.....dr	1 40	Muriate, Po., Squibb's lb	35
Cryst., Merck's dr	1 40	Nitrate, H. P., Merck's lb	44
ADAPES LANAE. B. P. lb	35	Nitrate, cryst., refined lb	37
AGARIC. White. lb	45	Oxalate, H. P., Merck's.....lb	85
ALBOLINE. lb	50	Phosphate lb	84
5-lbs lb	45	Salicylate, Merck's lb	1 10
Liquid lb	50	Salicylate, Merck's oz	13
Liquid, 5-lbs lb	45	Succinate oz	1 04
AGURIN oz	1 70	Sulphate, com'l lb	12
ALBUMEN. Egg. lb	1 45	Sulphate, C. P., Merck's lb	29
ALCOHOL. Absolute. qt	1 00	Sulpho Cyanate, pure oz	10
94%, 10-gal. case gal	2 91	Valerianate, cryst., 1-oz vials.....oz	24
94%, 5-gal. case gal	2 96	Valerianate, cryst. lb	1 75
Denatured, 5-gal. can.....gal	70	AMMONOL oz	1 05
Wood, 5-gal. case. gal	75	AMYL. Acetate lb	79
Wood, Columbian Spirits, 5 gal. in case.gal	1 02	Butyrate, M. C. W. oz	30
Wood, Columbian Spirits, barrels.....gal	85	Nitrite, Merck's oz	29
Wood, Columbian Spirits, 1/2 barrels....gal	95	Valerianate, M. C. W. lb	2 59
Cologne Spirits, 5 cents advance over price of Alcohol.		ANNATTO. Roll lb	60
ALDEHYDE. Conct., Merck's oz	25	ANODYNE. Hoffman's, 1-lb bottle.....lb	75
ALLSPICE. lb	17	ANTHRASOL oz	60
Powdered lb	20	ANTIFEBRIN. Merck's oz	17
ALMOND MEAL. lb	45	ANTI-KAMNIA and its combinations.....oz	1 00
ALMONDS. Bitter, shelled. lb	45	10-oz lots for \$9.25; 25-oz for \$22.80	
Sweet, shelled. lb	45	Tablets, Vest Pocket doz	1 75
ALOIN. 1-oz vials oz	15	Tablets, Vest Pocket, 1 gross, 5% off.	
ALUM. Ammonio-Ferric, M. C. W. lb	34	ANTIMONY. Black, powdered, pure.....lb	15
Chrome lb	21	Black, powdered, commercial lb	10
Burnt lb	15	Chloride, cryst., 1-oz vials.....oz	22
Ground lb	7-9	Chloride, sol. (Butter of) lb	39
Lump. lb	5-8	Oxysulphuret (Kermes Mineral) lb	1 00
Powdered. lb	7-9	Potassium Tartrate, powdered lb	45
ALUMINUM. Aceto-Tartrate, M. C. W...oz	20	Sulphuret, precipitated lb	92
Bromide, M. C. W.....oz	29	ANTINOSINE oz	2 10
Chloride, M. C. W.....lb	79	ANTIPYRIN. Knorr's oz	35
Chloride, M. C. W.....oz	14	New oz	25
Hydrated, pure, M. C. W.....lb	79	APIOL. Fluid Green, Merck's.....oz	37
Metallic, M. C. W.....oz	17	APOLSYIN. S. & G. oz	65
Sulphate, pure, M. C. W.....lb	25-29	APOMORPHINE. Hydrochlor. A m o r.,	
Sulphate, H. P., Merck's lb	59	Merck's, 1/8-oz vial oz	3 50
ALUMNOL oz	60	Mur. cryst. oz	8 50
AMIDOL. 1-oz. can oz	65	Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	4 00
AMMONIA. Spirits of lb	75	ARISTOL oz	1 80
Spirits of, aromatic lb	75	ARGOLS. Red lb	15
Aqua, 26 deg., 1-lb. bot.....lb	20	Red, powdered lb	20
Aqua, 26 deg., 4-lb bot.....lb	16	ARGYROL oz	1 50
Aqua, 26 deg., 5 gal. can.....lb	11	ARROWROOT. St. Vincent.....lb	18-20
Aqua, 26 deg., carboy.....lb	9 1/2	Taylor's Bermuda, 1/4s and 1/2s.....lb	35
Aqua, Washing, 5-gal. can.....gal	50	Taylor's Bermuda, bulk lb	35
AMMONIUM. Acetate, cryst., M. C. W...oz	14	ARSENIC. Bromide, 1-oz vials, M. C. W...oz	27
Arsenate, 1-oz vials, M. C. W.....oz	22	Chloride, sol., M. C. W.....lb	30
Benzoate, 1-oz vials, M. C. W.....oz	14	Iodide, 1-oz vials, M. C. W.....oz	44
Benzoate, M. C. W. lb	1 14	Metallic lb	45
Bichromate, 1-oz vials, M. C. W.....oz	14	Red, powdered lb	15
		Solution (Donovan's) lb	40

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Solution (Fowler's)	lb	30	Dogwood, pressed, 1-lb.....	lb	20
Sulphured, red powdered	lb	33	Dogwood, powdered	lb	25
Sulphured, yellow powdered	lb	33	Elder, pressed, 1-lb.....	lb	35
White, lump	lb	30	Elm, select, slabs.	lb	30
White, powdered, commercial.....	lb	18	Elm, ground, bulk	lb	30
Yellow (orpiment)	lb	35	Elm, powdered	lb	30
ASBESTOS. Fibrous, gro.....	lb	20	Elm, powdered, ¼s.....	lb	30
ASPARAGIN. ½-oz vials	oz	1 50	Elm, powdered, ⅛s.....	lb	35
ASPIRIN	oz	43	Elm, powdered, ozs.....	lb	40
ATROPIA. Pure, ⅛-oz. vials, Merck's....	oz	7 35	Hemlock, pressed, 1-lb.	lb	25
Sulphate, ⅛-oz vials, Merck's.....	oz	6 25	Hemlock, powdered.	lb	30
BALSAM. Copaiba, 8-lb can.....	lb	1 10	Jamaica Dogwood, pressed, 1-lb.....	lb	35
Copaiba, 5-lb bottle.....	lb	1 15	Jamaica Dogwood, powdered, 1-lb.....	lb	35
Copaiba, 1-lb bottle	lb	1 25	Mezereon, pressed, 1-lb.....	lb	28
Copaiba, solidified	lb	1 25	Oak, red, pressed, 1-lb.....	lb	22
Fir, Canada	lb	75-80	Oak, white, powdered.	lb	22
Fir, Oregon.	lb	50-55	Oak, white, pressed, 1-lb.....	lb	22
Gurgun	lb	40	Poplar, white, powdered, 1-lb.....	lb	25
Peru	lb	3 25-3 50	Poplar, white, pressed, 1-lb.	lb	25
Sulphur	lb	60	Poplar, yellow, pressed, 1-lb.....	lb	25
Tolu	lb	75	Prickly Ash, powdered	lb	40
BARIUM. Acetate, 1-oz vials, M. C. W....	oz	16	Prickly Ash, pressed, 1-lb.....	lb	33
Carbonate, M. C. W.....	lb	37	Quebracho	lb	35
Carbonate, precip., Merck's	lb	30	Sassafras.	lb	28
Chloride, chemically pure, M. C. W.....	lb	38	Sassafras, powdered	lb	25
Chloride, H. P., cryst., Merck's.....	lb	38	Simaruba	lb	50
Nitrate, M. C. W.	lb	23	Soap Tree	lb	9-10
Nitrate, H. P., cryst., Merck's.....	lb	37	Soap Tree, ground	lb	15
Sulphide, commercial, Merck's.....	lb	43	Soap Tree, powdered.	lb	15
Sulphide, pure, Merck's	lb	53	Sumac, pressed, 1-lb.....	lb	25
Sulphate, M. C. W.	lb	13	Tamarac, pressed, 1-lb	lb	25
BARK. Alder, black, pressed, 1-lb.....	lb	25	Wahoo Root, pressed, 1-lb.....	lb	33
Alder, red or tag, pressed, 1-lb.....	lb	24	Wild Cherry.	lb	16
Angostura	lb	30	Wild Cherry, ground.	lb	18
Ash, black, pressed, 1-lb.....	lb	20	Wild Cherry, powdered	lb	20
Ash, mountain, pressed, 1-lb.....	lb	24	BAY RUM. Domestic	gal	2 25
Ash, white, pressed, 1-lb.....	lb	25	Imported	gal	3 00
Barberry, pressed, 1-lb.....	lb	30	BEANS. Calabar.	lb	40
Barberry, powdered	lb	35	Tonka, Angostura	lb	1 35
Bayberry, pressed, 1-lb.	lb	25	Vanilla, short, true Mexican.....	lb	8 50
Bayberry, powdered.	lb	30	Vanilla, long, true Mexican.....	lb	9 50
Birch, pressed, 1-lb.....	lb	24	Vanilla, Tahita	lb	1 25-1 50
Black Haw, powdered	lb	35	BEBEERINE. Pure, 1-oz vials	oz	2 04
Black Haw, pressed, 1-lb.....	lb	30	Sulphate, 1-oz vials	oz	1 49
Black Willow, pressed, 1-lb.....	lb	25	BENZOLE. Pure	lb	35
Blackberry.	lb	20	H. P., Merck's	lb	37
Buckhorn, pressed, 1-lb	lb	25	BENZIN. Gallon		30
Butternut, pressed, 1-lb	lb	25	5 and 10 gallons	gal	25
Calisaya, yellow, commercial.	lb	30	Pints	doz	1 60
Calisaya, yellow, commercial, powd.....	lb	32	BERBERINE. Hydrochloride, Merck's....	oz	2 29
Calisaya, East India.	lb	42	Sulphate, Merck's	oz	2 29
Calisaya, powdered.	lb	45	BERRIES. Buckthorn	lb	30
Canella	lb	30	Coccius Indicus	lb	15
Canella, powdered	lb	35	Cubeb, stemless	lb	25
Cascara, Sagrada.	lb	18	Cubeb, powdered	lb	30
Cascara, Sagrada, powdered.	lb	20	Elder	lb	30
Cascarilla	lb	25	Juniper, Italian	lb	10
Cascarilla, powdered	lb	30	Poke	lb	25
Cassia.	lb	22	Prickly Ash.	lb	40
Cassia, powdered	lb	25	Sumac	lb	25
Cinchona, red.	lb	45-50	Sumac, powdered	lb	30
Cinchona, red powdered.	lb	45-50	BETOL	lb	60
Cinnamon, Ceylon.	lb	40 50	BISMUTH. Acetate, M. C. W.....	oz	36
Cinnamon, Ceylon, powdered.	lb	40-50	Citrate, M. C. W.....	lb	2 89
Cotton Root, powdered.	lb	35	Citrate, M. C. W.....	oz	26
Cotton Root, pressed, 1-lb.....	lb	35	Citrate and Ammonia, M. C. W.....	oz	26
Cramp, powdered	lb	25	Citrate and Ammonia, M. C. W.....	lb	2 82
Cramp, pressed, 1-lb	lb	25	Lactate	oz	44
Cundurango	lb	45	Metallic	lb	2 50
Cundurango, powdered	lb	50	Nitrate, M. C. W.....	oz	24

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Oxide, Hydrated, M. C. W.....lb	3 68	English, Howard's lb	1 35
Oxide Hydrated, M. C. W.....oz	34	CAMPHOR. Monobromated, Mal'rodt's...oz	27
Oxychloride, M. C. W.....lb	2 73	Tar flake. lb	5-7
Salicylate, 40%, Merck's.....oz	23	Tar balls. lb	5-7
Salicylate, 64% Basic, Merck's.....oz	25	CANDY. Coltsfoot Rock lb	30
Salicylate, 64%, M. C. W.....lb	2 65	Horehound. lb	12
Subbenzoate oz	32	Rock, on strings lb	15
Subcarbonate lb	2 67	Rock, brown lb	16
Subgallate, Merck's oz	25	Rock, red lb	15
Subiodide, M. C. W.....lb	5 09	Rock, white lb	14
Subiodide, 1-oz vials, M. C. W.....oz	39	CANTHARIDES, Russian, powdered.....lb	1 35
Subnitrate, M. C. W.....lb	2 37	Chinese, powdered lb	1 00
Tannic, 1-oz vials, M. C. W.....oz	27	CAPSICUM. African, pods lb	25
Valerianate, 1/8s oz	62	African, powdered lb	30
BLUE MASS lb	65	Bombay lb	20
Powdered lb	75	CARAMEL gal, \$1.25. lb	30
BLUE VITROL. Barrels, 9.....lb	12-15	CARBON. Bisulphide lb	17
Powdered lb	18	Bisulphide, 50-lb cans.....can	4 73
BOLE. Armenian lb	18	Bisulphide, Wheeler's 50-lb can.....ea	4 73
BONE ASH lb	6-8	Bisulphide, 1-gal cans. gal	1 35
BORAX. C. P., Squibb's lb	33	Bisulphide, quart bottles doz	4 50
Pacific Coast Borax Co., 1-lb.....doz	1 14	Bisulphide, Purif., Merck's.....lb	49
Pacific Coast Borax Co., 1/4-lb.....doz	90	CARMINE. No. 40. oz	40
Pacific Coast Borax Co., 1/4-lb.....doz	48	No. 40. lb	4 50
Powdered lb	10-12	CASSIA FISTULA lb	20
Pure Granular lb	25	CASTOR FIBER. oz	1 50
Refined lb	10-12	Castor Fiber, powdered oz	1 75
BOROFORMOL. Pints doz	7 50	CERATE. Cantharides lb	1 00
BOROGLYCERIDE Solution. lb	60	Goulard's, U. S. P. lb	70
BROMOFORM oz	20	Resin, U. S. P. lb	50
BROMINE lb	83	Savin lb	60
Chloride, solution oz	60	Simple lb	50
BRUCINE. 1/8-oz vials, M. C. W.....oz	1 75	Spermaceti lb	70
BRUCINE. Merck's oz	1 75	Turner's lb	60
Phosphate, Merck's oz	1 75	Zinc, Carbonate, true lb	60
Sulphate, Merck's, 1/8-oz vials.....oz	1 75	Zinc, Oxide lb	60
BUDS. Balm of Gilead lb	60	CERIUM. Oxalate, Merck's oz	09
Cassia lb	45	Oxalate, 1-lb cartons.....lb	52
BUTTER CACAO. Ghirardelli lb	62	CHALK. Crayons, white lb	15
German lb	65	French, cut lb	18-20
CADMIUM. Bromide, M. C. W.....oz	20	French, powdered lb	5-8
Iodide, M. C. W., 1-oz vials.....oz	33	Precipitated, English lb	10-12
Sulphate, M. C. W., 1-oz vials.....oz	24	Prepared in drops, bulk lb	7-8
CAFFEIN. Bromide, 1-oz vials.....oz	31	Prepared in drops, 5-lb boxes.....lb	8-10
1/8-oz vials oz	51	Prepared pink, 8-lb boxes.....lb	10
Citrated, Merck's oz	23	White, in lumps lb	3-4
Pure, Merck's oz	29	CHARCOAL. Animal lb	8-10
Sulphate, 1/8-oz vials, Mallinckrodt's.....oz	57	Willow, powdered lb	15-20
Salicylate, true salt, 1/8s, Mallinckrodt's.....oz	57	CHINA CLAY lb	10
CALAMINE lb	18	CHINESE SHAVINGS lb	60
CALCIUM. Bromide, 1-oz vials, M. C. W.....oz	12	CHINOIDINE. 1-oz rolls oz	12
Bromide, M. C. W.....lb	64	CHLORAL HYDRATE, CROTON, 1-oz vial	
Chloride, fused, M. C. W.....lb	64	incl. oz	35
Chloride, granular, M. C. W.....lb	30	Crystals, Merck's lb	1 35
Glycerylphosphate oz	22	Crystals, Merck's, 1/2s.....lb	1 45
Hypophosphite, 1-oz vials. oz	14	Crystals, Merck's, 1/4s.....lb	1 55
Hypophosphite. lb	89	Crystals, Merck's, oz.....lb	2 10
Hypophosphite and Sodium, 1-oz vials.....oz	16	Crystals, M. C. W., 1s.....lb	1 35
Hypophosphite and Sodium, M. C. W...lb	1 09	Crystals, M. C. W., 1/2s.....lb	1 45
Iodide, 1-oz vials, M. C. W.....oz	37	Crystals, M. C. W., 1/4-lb cartons.....lb	1 50
Lactophosphate, soluble lb	1 35	Crystals, M. C. W., ozs.....lb	2 10
Lactophosphate, soluble oz	17	Crystals, 1-lb g. s. b. incl., Schering....lb	1 35
Phosphate, precipitated, 1-lb cart.....lb	20	Crystals, 1/2-lb g. s. b. incl., Schering....lb	1 45
Phosphide, 1-oz vials oz	50	Crystals, 1/4-lb g. s. b. incl., Schering....lb	1 55
Sulphate, pure lb	49	Crystals, 1-oz g. s. vls. incl., Schering....oz	17
Sulphide, 1-oz vials oz	10	CHLORALAMID 25 gramme	80
Sulphide lb	37	CHLOROFORM. 1-lb tin.....lb	52
Sulphite lb	84	In 7-lb bottle lb	42
Sulpho, carbolate, M. C. W.....oz	11	Squibb's, 1-500 gramme. lb	90
CALOMEL. Bulk. lb	1 00	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	25

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Bisulphate, M. C. W. oz	18	CROCUS MARTIS lb	16
Muriate, M. C. W. oz	17	CUDBEAR lb	30
Sulphate, 1-oz vials, M. C. W. oz	17	CUMARIN oz	45
CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	50	CUMENE (Cumol), Merck's lb	1 10
Bisulphate, 1-oz vials, M. C. W. oz	30	CURCUMA. Powdered lb	16
Muriate, M. C. W. oz	32	CUTTLEFISH lb	35
Salicylate, 1-oz vials, M. C. W. oz	34	Jeweler's lb	85
Sulphate, 1-oz vials, M. C. W. oz	30	Powdered lb	30
Sulphate, 5-oz cans, M. C. W. oz	25	DATURINE. Alk., cryst., 5-gr, Merck....ea.	75
CLOVES. Zanzibar lb	30	DEXTRIN. lb	12-15
Zanzibar, powdered lb	35	DIASTASE. of Malt oz	1 14
COBALT lb	25	DIGALEN. ½-oz bottles ea	1 00
Cobalt, powdered lb	30	DIGITALIN. ⅛-oz vials, Merck's.....oz	5 75
COCAINE. Alk., 1-oz vials, incl. oz	3 50	DIONIN. ⅛s, Merck's oz	6 25
Hydrochloride, Merck's oz	2 75	15-gr vials, Merck's. ea	35
Hydrochloride Cryst., 1-oz v'ls, M.C.W. oz	2 75	DOVER'S POWDER, U. S. P. lb	1 70
Hydrochloride Cryst., ½-oz v'ls, M.C.W. oz	2 90	DRAGON'S BLOOD, Mass. lb	55
Hydrochloride Cryst., ¼-oz v'ls, M.C.W. oz	3 00	Powdered lb	85
Hydrochloride Cryst., ⅛-oz v'ls, M.C.W. oz	3 15	Reed's. lb	85
COCHINEAL. Honduras. lb	60	DIURETIN. oz	1 80
Honduras, powdered. lb	65	DUBOISINE, Sulphate, Merck's, 10-gr vial..	1 10
CODEINE. Merck's Pure oz	5 75	EARTH, Fuller's, powdered. lb	8-10
Muriate 1-oz, \$5 50.....⅛s	5 70	EIKONOGEN, lb, \$3.95; ½s, \$4.20.....oz	37
Phosphate, ⅛-oz vials.....oz	5 45	¼s. lb	4 80
Sulphate, M. C. W. oz	5 50	ELATERIN, Merck's, 15-gr vial.....	1 25
COLLODION lb	90	ELATERIUM, ⅛-oz vials. oz	3 00
1-oz vials doz	1 25	EMERY. Flour. lb	10-12
Cantharidal lb	2 35	Grain. lb	10-12
Cantharidal, 1-oz vials doz	2 20	EMETIN (Resinoid), Merck's. oz	7 53
Flexible lb	1 00	(Alkaloid), pure, Merck's, 15-gr vial.....	1 25
Flexible, 1-oz vials doz	1 50	ERGOT. Spanish. lb	65
COLCHICINE. cryst., Merck's, 15-grain...gr	14	Spanish, powd. lb	65
C. P., Amorph., 15-grain vials.....gr	30	ERGOTIN. Ergotin-Bonjean, Merck's.....oz	39
COLOCYNTH. Apples, Trieste.....lb	60-65	ERGOTOLE. S. & D.....doz	4 50
Apples, powdered lb	75	ESERINE (Physostigmine), 5 gr Alkaloid,	
COMPOSITION POWDER, 2-oz papers..lb	35	Merck's gr	13
CONFECTION. Aromatic lb	1 00	Sulphate, 5-gr vials, Merck's.....ea	50
Opium lb	1 50	Sulphate, 10-gr vials, Merck's.....ea	1 00
Rose, U. S. P. lb	65	Sulphate, 15-gr vials, Merck's.....ea	1 50
Senna, U. S. P. lb	70	ETHER. Acetic, M. C. W., 1-lb bot.....lb	59
Theriac lb	1 25	Benzoic, 1-oz bot. oz	34
COPPER. Acetate, cryst., C.P., M.C.W....lb	74	Butyric, 1-lb bot. lb	1 70
Acetate, com'l, lump lb	40	Chloric, U. S. P., M. C. W., 1-lb bot....lb	64
Acetate, Po. Verdigris lb	45	Chloric, concent., M. C. W., 1-lb bot....lb	74
Ammoniated lb	59	Formic, 1-lb bot. lb	1 59
Arsenite, 1-oz vials, M. C. W. oz	19	Hydrobromic, 1-oz bot. oz	20
Arsenite, 1-oz vials oz	19	Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 20
Bromide oz	32	Nitrous, conc., M. C. W., ½-lb bot.....lb	1 10
Iodide, M. C. W. oz	44	Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00
Nitrate lb	54	Nitrous Spirit, 4-lb bot. lb	58
Sulphate, C. P., granulated, 1-lb. boxes..lb	23	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	81
Sulphate, Caustic Pencils, Merck's.....doz	1 75	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	78
Sulphate, purified, 1-lb cartons.....lb	21	Sulphuric, conc., 1-lb can.....lb	87
COPPERAS. bbls 1¼.....lb	3-4	Sulphuric, conc., 3-lb can.....lb	84
CORROSIVE SUBLIMATE lb	92	Sulphuric, washed, 1-lb bot.....lb	87
Powdered. lb	95	Sulphuric, Squibb's, in 1-500 gm cans....ea	1 35
COTON. Para, Merck's, ⅛-oz.....oz	14 00	Sulphuric, Squibb's, in 1-250 gm cans....ea	72
COTTON. Negative. oz	60	Sulphuric, Squibb's, in 1-100 gm cans....ea	33
COWHAGE. 1-oz cans oz	55	Valerianic. oz	44
CREAM TARTAR, pure, powdered.....lb	34-37	ETHYL. Bromide, Merck's. oz	20
Pure, powdered, 25-lb box.....lb	30	Chloride, 10 gramme tubes Bengue.....doz	5 00
CREOLIN. ½-lb.....doz	4 00	Chloride, 30 gramme tubes Bengue.....doz	10 00
1-lb doz	8 00	Chloride, Merck's, 10 gramme.....ea	40
CREOSOTE. Beechwood, Merck's lb	94	Iodide (see Hydriodic Ether), Merck's..oz	54
Merck's, ½-lb. lb	1 10	EUCALYPTOL. Merck's. oz	16
Merck's, ¼-lb. lb	1 20	EUCAINE. A or B, ⅛s.....oz	3 60
CREOSOTE CARBONATE oz	65	EUDOXINE. oz	2 10
In ¼-lb lb	9 25	Tablets, 3-gr. oz	2 60
In ½-lb lb	9 15	Tablets, 5-gr. oz	2 50
In 1-lb lb	9 10	Tablets, 1-3 gr, ¼-oz bots.....oz	3 00

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EUKATROL, powd.....oz	1 00	GLYCYRRHIZIN. Ammoniated, Merck's...oz	34
Tablets.....oz	1 00	Ammoniated, Merck's.....lb	4 10
EUROPHEN. oz	1 80	GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70
EXALGINE. oz	1 50	Chloride, 15-gr vials, M. C. W.....doz	5 10
EXTRACT. Licorice, Corigliano. lb	45	Mono-bromide, Merck's, 15-gr vials.....ea	1 25
Licorice, Mellor & Rittenhouse.....lb	27-30	Tri-bromide, Merck's, 15-gr vials.....ea	1 00
Licorice, M. & R., 25 and 50-lb box....lb	26	Tri-cyanide, Merck's, 15-gr vials.....ea	2 00
Licorice, soft, perf., clearly soluble....lb	75	GOOSE GREASE. lb	60
Licorice, Y. & S.....lb	27-30	GRAINS. Paradise. lb	40
Licorice, powd. lb	35	Powdered. lb	45
Logwood, bulk lb	15	GUAIACOL. Carb. oz	1 50
Logwood, ¼s. lb	20	Merck's. oz	18
Logwood, ½s. lb	18	GUARANA. Powd. lb	2 75
Logwood, 1s. lb	16	GUM. Aloes, Barbadoes.....lb	50
Male Fern, U. S. P., Merck's.....lb	2 25	Aloes, Barbadoes, powd.....lb	55
Malt, dry, Merck's. lb	1 25	Aloes, Cape. lb	20
Opium, Aqueous, dry, Merck's.....oz	1 04	Aloes, Cape, powd.....lb	20-25
Witch Hazel. gal	1 10	Aloes, Socotrine lb	40
Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05	Aloes, Socotrine, powd.....lb	40
Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00	Ammoniac tears. lb	40
FAREOL. oz	50	Arabic, Turkey, first pick.....lb	55
FENETOLE lb	2 00	Arabic, Turkey, second pick.....lb	40
FERRATIN. Powder or tablets.....oz	85	Arabic, Turkey, sifted sorts. lb	20
FLAKE WHITE. English. lb	15	Arabic, first pick, granulated.....lb	58
FLOUR. Gluten. lb	15	Arabic, first pick, powd.....lb	60-65
Rice. lb	12	Asafoetida, Calcutta. lb	40
FLOWERS. Althea. lb	40	Asafoetida, powd. lb	45
Arnica. lb	18-20	Asphaltum. lb	15
Arnica, powd. lb	23-25	Benzoin, marble, select. lb	50
Calendula, new lb	90	Benzoin, powd. lb	55
Chamomile, German, new.....lb	35	Camphor, bulk lb	1 05
Chamomile, Roman lb	45	Camphor, 1-oz blocks.....lb	1 08
Elder lb	30	Camphor, 24 to lb.....lb	1 08
Elder, pressed. oz	25	Camphor, powd. lb	1 20
Kooso. lb	75	Catechu, refined. lb	18
Kooso, powd. lb	80	Catechu, powd. lb	30
Lavender. lb	35	Copal lb	35
Mullein.....lb	1 00	Damar. lb	38
Orange.....lb	1 10	Galbanum. lb	1 00
Poppy, red. lb	75	Gamboge lb	1 10
Rose, red. lb	1 20	Gamboge, powd. lb	1 15
Rosemary. lb	35	Guaiaac. lb	35
FLOUR SPAR. Powdered.....lb	25	Guaiaac, powd. lb	40
FORMALDEHYDE. Merck's.....lb	32	Kino, true. lb	75
5-lb bot. lb	25	Kino, true, powd.....lb	80
FORMALIN. S. & G. lb	40	Mastic tears. lb	85
FORMIN. Merck's. oz	21	Myrrh, Turkey. lb	35
GADUOL. Merck's. oz	37	Myrrh, Turkey, powd.....lb	40
GAMBIER. lb	15	Olibanum tears lb	30
GARANTOSE. 550 times sweeter than sugar.		Opium lb	8 00
1-lb cans, Merck's.....lb	2 25	Opium, powd. lb	9 00
1-oz cans, Merck's.....oz	20	Sandarac. lb	45
GELATIN. Cooper's, 12-lb case.....lb	65	Scammony, Aleppo. oz	40
Coxe's. doz	1 50	Scammony, Virgin, true.....oz	75
French Pink. lb	75	Shellac, bleached. lb	75
French Gold Label. lb	55	Shellac, orange. lb	70
French Silver Label.....lb	40	Shellac, ground. lb	75
GLASS. Powdered. lb	15	Spruce.....lb	1 50
Soluble. lb	25	Tamarac, true. lb	1 25
GLUCOSE. 1-lb bot.....lb	20	Thus. lb	12
GLUE. Common. lb	15	Tragacanth, ribbon. lb	90
White, No. 1. lb	25	Tragacanth, powd. lb	80
GLUTOL oz	65	GUTTA PERCHA. Crude, shavings.....lb	1 75
GLYCERINE. Price's. lb	70	Crude, sheets. lb	1 75
Pure, in 10-lb cans.....lb	20 ½	HEDONAL. oz	1 60
Pure, in 50-lb cans.....lb	18	HEMICRANIN oz	90
GLYCEROPHOSPHATES. Iron, Merck's..oz	32	HEMOGALLOL. Merck's. oz	80
Lime, Merck's. oz	22	Tablets, Merck's. 100	80
Potash, Merck's oz	29	HEROIN. 1-oz. oz	4 85
Soda, Merck's. oz	28		

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1-oz, ½-oz vials.....oz	5 00	Cryst. or powd., Merck's.....oz	34
¼-oz. oz	5 15	Deodorized. oz	54
15-gr vials. ea	23	IODOL. oz	1 25
Hydrochloride, oz vials.....oz	4 85	IRON, Acetate, dry, 1-oz vials, M.C.W.....oz	24
½-oz. oz	5 00	Acetate, liquor. lb	44
½-oz, ¼-oz vials.....oz	5 15	Albuminate. oz	20
15-gr vials. ea	23	Ammoniated, M. C. W.....lb	44
HEXAMINE oz	3c	And Ammonium Cit., Merck's.....lb	79
Tablets. oz	40	Arsenate, 1-oz vials. oz	18
HIERA PICRA. lb	50	By Hydrogen, Merck's.....lb	58
HOFFMAN'S ANODYNE. lb	75	Carbonate, precipitated. lb	18
HOMATROPINE, Alk'l'd, 5-gr vials, Merck's.ea	2 25	Carbonate, proto. lb	42
HOMATROPINE, Alk., 5-gr v'ls, Merck..ea	2 25	Carbonate, saccharated. lb	45
Hydrobromate, 5-gr vials, Merck's.....ea	1 75	Chloride, 1-oz vials.....oz	8
Hydrochlorate, 5-gr vials, Merck's.....ea	2 10	Chloride, crystal. lb	34
HOMOGLOBIN, powd., Merck's.....oz	1 04	Chloride, sol. for tincture.....pt	35
HOPS, new, bulk. lb	37	Citrate, soluble, 1-oz vials.....oz	11
New, ozs. lb	50	Citrate, soluble, M. C. W.....lb	80
New, ¼s, ½s. lb	40	Citrate and Quinine, sol., M. C. W....lb	2 00
HYDROCHINON, Merck's. oz	18	Citrate and Quinine with Strych., M.C.W.lb	2 55
Merck's. lb	1 42	Citrate and Quinine with Strych., M.C.W.oz	26
HYDROGEN PEROXIDE, Drevet's U.S.P.,		Citrate and Strychnine, 1-oz vials, M.C.W.oz	13
1-lb bots. doz	3 00	Ferrocyanide, 1-oz vials, M. C. W.....oz	10
Drevet's U.S.P., ½-lb bots.....doz	1 90	Ferrocyanide, M. C. W.....lb	65
Drevet's U.S.P., ¼-lb bots.....doz	1 40	Filings.....lb	16
Marchand's, 1-lb bots.....doz	8 00	Glycerino Phosphate. oz	32
Marchand's, ½-lb bots.....doz	5 25	Hypophosphite, 1-oz vials, M. C. W.....oz	20
Marchand's, ¼-lb bots.....doz	3 80	Iodide, 1-oz vials, M. C. W.....oz	36
Marchand's, ⅛-lb bots.....doz	2 25	Lactate, 1-oz vials, M. C. W.....oz	10
M. C. W., 1-lb bots.....doz	3 00	Lactophosphate, 1-oz vials, M. C. W.....oz	19
M. C. W., ½-lb bots.....doz	1 80	Nitrate, sol., U. S. P., M. C. W.....lb	34
M. C. W., ¼-lb bots.....doz	1 20	Oxide, black. lb	49
Oakland, 1-lb bots.....doz	6 50	Oxide, brown, com'l, Merck's.....lb	22
Oakland, ½-lb bots.....doz	4 00	Oxide, brown, pure, Merck's.....lb	74
Oakland, ¼-lb bots.....doz	2 25	Peptonized, Merck's. oz	24
Oakland, 5-lb bots.....ea	1 59	Phosphate, precipitate. lb	39
HYDRO NAPHTHOL. oz	75	Phosphate, U. S. P., scales.....oz	11
HYDRASTINE, Alkaloid, Merck's.....oz	10 04	Phosphate, U. S. P., scales.....lb	65
Hydrochloride, Merck's. oz	10 04	Pyrophosphate, soluble, Merck's.....lb	77
HYDRASTININE, Hydrochloride, Merck's,		Pyrophosphate, U. S. P., 1880.....oz	11
15-gr vials. ea	2 10	Pyrophosphate, U. S. P., 1880.....lb	77
HYDROQUINONE, Merck's. oz	18	Reduced (Quevenne's) lb	58
HYOSCINE, Amorphous, Merck's, 15-gr		Reduced (Quevenne's) oz	10
vials. ea	2 00	Salicylate, 1-oz vials, M. C. W.....oz	15
Hydrobromate, 5-gr vials, Merck's.....ea	2 00	Subsulphate, M. C. W.....oz	6
Hydriodide, 5-gr vials, Merck's.....ea	2 00	Subsulphate, M. C. W.....lb	36
Sulphate, 5-gr vials, Merck's.....ea	2 00	Subsulphate, sol., M. C. W.....lb	23
HYOSCYAMINE, Alkaloid, crys., Merck's,		Succinate, Merck's oz	69
15-gr vials. ea	4 75	Sulphate, dried. lb	20
Amorphous, Merck's. gr	25	Sulphate, gran., pure.....lb	18
Hydrobromate, Amorph., Merck's, 15-gr.ea	3 00	Sulphate, pure, cryst., M. C. W.....lb	20
Sulphate, crys., Merck's, 15-gr.....ea	3 03	Sulpho-Carbolate, 1-oz vials, M. C. W.....oz	13
Sulphate, Amorph., 5-gr vials, Merck's.....ea	1 25	Tannate, 1-oz vials, M. C. W.....oz	22
IATROL. oz	95	Tartrate and Ammonia, M. C. W.....oz	11
ICHTHARGAN, Merck's. oz	3 00	Tartrate and Ammonia, M. C. W.....lb	72
ICHTHOFORM, Merck's. oz	1 00	Tartrate and Potassium, M. C. W.....oz	10
ICHTHYOL, 1-oz vials, Merck's.....oz	32	Tartrate and Potassium, scale, M. C. W...lb	58
¼s, Merck's. oz	4 25	Tersulphate, sol., U. S. P.....lb	40
½s, Merck's. oz	4 10	Valerianate. oz	22
1s, Merck's. oz	4 00	IODOTHYRINE. oz	3 40
INDIGO, Manila, extra.....lb	75	ISINGLASS, American. lb	1 25
IODIPIN (10% Iodized Sesame oil),		Russian. lb	5 25
Merck's. oz	28	KAMALA. lb	65
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47	Powd. lb	75
Chloride, 1-oz vials, M.C.W.....oz	52	KAOLIN.....lb	10
Resublimed, 1-oz vials, M. C. W.....oz	35	KERATIN (Pepsinized), Merck's, ¼s.....oz	3 53
Resublimed, M. C. W.....lb	3 43	KOUSSO. lb	75
Burnham's, soluble. oz	1 00	Powd.....lb	75
IODOFORM, bulk, M. C. W.....lb	3 85	KRYOFINE. oz	1 00
		LACTUCARIUM, Merck's oz	84

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LACTOPHEPIN.	oz	1 00	Stramonium, powd.	lb	30
LANOLIN.	lb	80	Stramonium, pressed, oz.	lb	25
Lanae Adeps, 1-lb cans, B. J. D.	lb	35	Thyme, pressed, oz.	lb	25
Lanae, British.	lb	35	Uva, Ursi.	lb	20
LANUM (Adeps Lanae Hydrosus), Merck's.	lb	40	Witch Hazel, pressed, oz.	lb	25
LARD, Benzoated, 5-lb cans.	lb	28	LEECHES.	ea	10
LARGIN, Merck's	oz	1 75	2 dozen lots.	ea	8
LEAD, Acetate, med. crys. or gran.,			LEPTANDRIN.	oz	35
Merck's.	lb	33	LIME, Chloride, 35-lb cans.	lb	5
Acetate, white.	lb	18	Chloride, in bbls of 350 lbs.	lb	2 1/4
Acetate, white, powd.	lb	25	Chloride, 1b cans	doz	90
Acetate, purified, gran., 1-lb cart., M.C.W.	lb	33	Chloride, 1/2-lb cans.	doz	65
Bromide.	oz	24	Chloride, 1/4-lb cans.	doz	45
Carbonate.	lb	12	LITHARGE.	lb	12
Chloride, 1-oz vials.	oz	11	LITHIUM, Benzoate, 1-oz vials, M. C. W.	oz	16
Chromate, M. C. W.	lb	1 19	Bromide, Merck's.	oz	24
Iodide, 1-oz vials, M. C. W.	oz	27	Bromide, 1-oz vials, M. C. W.	oz	24
Nitrate, 1-lb boxes, M. C. W.	lb	23	Carbonate, Merck's.	oz	20
Nitrate, chemically pure, M. C. W.	lb	40	Citrate, 1-oz vials, M. C. W.	oz	18
Oxide, chemically pure, M. C. W.	lb	84	Citrate, cryst. or powd., Merck's.	oz	18
Oxide, Merck's.	lb	84	Iodide, Merck's.	oz	38
Subacetate, sol.	lb	35	Salicylate, 1-oz vials, M. C. W.	oz	16
Sulphate, pure, M. C. W.	lb	63	LITMUS.	lb	50
Tannate, 1-oz vials, M. C. W.	oz	24	Paper.	doz	50
LEAVES, Aconite, German.	lb	30	LODESTONE.	lb	75
Aconite, powd.	lb	30	LONDON PURPLE.	lb	20
Aconite, pressed.	oz	25	LOSOPHAN.	oz	1 80
Angelica, pressed.	oz	25	LUPULIN, German.	lb	75
Bay, bulk.	lb	15	LYCOPodium.	lb	75
Belladonna, English, bts.	lb	1 25	LYCETOL.	oz	4 25
Belladonna.	lb	30	LYSOL, 1-gal. jugs.	gal	4 00
Belladonna, powd.	lb	35	Pints.	doz	8 00
Belladonna, pressed.	oz	35	MACE.	lb	75
Blessed Thistle, pressed.	oz	34	Powd.	lb	75
Borage, pressed.	oz	35	MADDER, Dutch.	lb	15
Buchu, long.	lb	55	MAGNESIUM, Benzoate, Mallinckrodt's.	oz	24
Buchu, short.	lb	40	Bromide, Mallinckrodt's.	oz	25
Buchu, powd.	lb	40	Calcined, Jennings', 1-lb cans.	lb	85
Buckbean, pressed.	oz	30	Calcined, K. & M.'s, 1-lb cans.	lb	75
Cocoa.	lb	45	Calcined, K. & M.'s, heavy.	lb	80
Conium.	lb	30	Carbonate, Jennings', 2-oz.	lb	35
Conium, powd.	lb	35	Carbonate, Jennings', 4-oz.	lb	35
Conium, pressed.	oz	30	Carbonate, K. & M.'s, 1-oz.	lb	27
Coltsfoot, pressed.	oz	25	Carbonate, K. & M.'s, 2-oz.	oz	23
Damiana.	lb	30	Carbonate, K. & M.'s, 4-oz.	lb	23
Digitalis, pressed.	oz	35	Carbonate, K. & M.'s, small sq.	lb	60
Digitalis.	lb	35	Carbonate, powd., in 65-lb bbls.	lb	13
Digitalis, powd.	lb	35	Carbonate, powd., in 10-lb boxes.	lb	16
Eucalyptus.	lb	20	Citrate, dry, English.	lb	65
Grindelia Robusta	lb	25	Citrate, sol.	doz	1 75
Grindelia Squarosa	lb	40	Glycerinophosphate, Merck's.	oz	44
Hemlock, pressed.	oz	30	Hypophosphite, 1-oz vials, M. C. W.	oz	20
Henna.	lb	50	Hypophosphite, M. C. W.	lb	1 69
Henna, powd.	lb	55	Hypophosphite, Merck's.	oz	20
Henbane.	lb	30	Iodide, M. C. W.	oz	47
Henbane, powd.	lb	30	Sulphite, Mallinckrodt's	lb	49
Henbane, pressed, oz.	lb	30	MANGANESE, Black, Oxide	lb	8-10
Jaborandi.	lb	35	Phosphate, M. C. W.	oz	18
Jaborandi, powd.	lb	40	Carbonate, 1-oz vials, M. C. W.	oz	14
Laurel.	lb	25	Chloride, 1-oz vials, M. C. W.	oz	14
Lovage, pressed, oz.	lb	30	Hypophosphite, 1-oz vials, M. C. W.	oz	20
Lungwort, pressed, oz.	lb	34	Hypophosphite, Merck's.	oz	20
Marjoram, sweet	lb	36	Iodide, 1-oz vials, M. C. W.	oz	47
Rosemary, bulk.	lb	20	Peptonized, Merck's.	oz	29
Rosemary, pressed, oz.	lb	25	Phosphate, M. C. W.	oz	18
Sage, oz.	lb	25	Sulphate, 1-oz vials, M. C. W.	oz	9
Savin, pressed, oz.	lb	25	MANNA, Large flake	lb	90
Senna, Alexandria, garbeled.	lb	30	Small flake.	lb	60
Senna, Alexandria, powd.	lb	30	MENTHOL.	oz	35
Senna, Tinnevely, select.	lb	25	Cryst., 1-oz vials, Mallinckrodt's.	oz	35

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Crystallized	lb	3 65	Surgeon's.	lb	20
MERCURY, Chloride, Merck's.	lb	99	OIL, Almonds, Bitter, true, Merck's.	lb	6 59
Ammoniate, d white precip.	lb	1 25	Almonds, Bitter, Allen's.	oz	75
Bisulphate.	lb	75	Almonds, Sweet, Allen's.	lb	75
Cyanide.	oz	31	Almonds, Sweet.	lb	45-60
Iodide, Green, Merck's.	oz	24	Amber, rectified.	lb	60
Iodide, green, 1-oz vials, M. C. W.	oz	24	Anise.	lb	2 00-2 25
Iodide, Red, Merck's.	oz	26	Bay Leaves, true	oz	40
Iodide, red, 1-oz vials, M. C. W.	oz	26	Bay Leaves	lb	4 25-4 50
Iodide, Yellow, Merck's.	oz	24	Benne.	gal	1 20
Iodide, yellow, 1-oz vials, M. C. W.	oz	24	Bergamot	lb	5 25-5 50
Nitrate, proto., 1-oz vials, M. C. W.	oz	27	Birch Tar, rectified.	lb	1 25
Nitrate, solution, 1-oz vials.	oz	27	Cade.	lb	50
Oxide, black, 1-oz vials.	oz	18	Cajuput (21-oz bottles).	lb	1 10-1 35
Oxide, red (red precip.)	lb	1 20	Calamus.	oz	45
Oxide, yellow, 1-oz vials.	oz	18	Camphor, E. I.	lb	45
Salicylate, M. C. W.	oz	27	Caraway, seed.	lb	2 25
Subsulphate, 1-oz vials.	oz	15	Cardamon.	oz	2 50
Subsulphate.	lb	1 06	Cassia	lb	1 85-2 00
Sulphuret, black.	lb	78	Castor, Baker's A. A.	gal	1 38-1 50
With Chalk, 1-lb cartons.	lb	50	Castor, Marsh's	gal	1 34-1 45
METHYL, SALICYLATE.	lb	80	Castor, 2-oz bottles.	doz	85
METHYLENE, Blue Medicinal, Merck's.	oz	45	Castor, 4-oz bottles.	doz	1 25
MILK SUGAR, Cryst.	lb	33	Castor, 6-oz bottles.	doz	1 75
Powdered, bulk	lb	23	Castor, 8-oz bottles.	doz	2 25
M. C. W., 1-lb cartons	lb	25	Castor, 12-oz bottles.	doz	2 50
MORPHINE. Sulphate, 1/8s, 1-oz box, M. C. W.	oz	3 90	Castor, 16-oz bottles.	doz	3 75
Sulphate, 1/8s, 2 1/2-oz box, M.C.W.	oz	3 85	Cedar	lb	60-100
Sulphate, 1-oz vials, M.C.W.	oz	3 65	Cedrat.	oz	40
Sulphate, 5-oz can, M.C.W.	oz	3 60	Celery.	oz	1 40
In 10-oz lots, 10c oz less.			Chamomile, German.	oz	5 00
Morphia, Acetate, 1/8s, M. C. W.	oz	4 25	Chamomile, Roman.	oz	1 75
Morphia, Muriate, 1/8s, M. C. W.	oz	4 15	China, Nut.	gal	1 00
Morphia, Valerianate, 1/8s, M. C. W.	oz	5 15	Cinnamon, Ceylon.	oz	90
Other salts or Morphine subject to market price based on above.			Citronella	lb	75-85
MOSS, Iceland.	lb	18	Cloves.	lb	1 75-2 00
Irish.	lb	15	Cocanut	lb	20-25
Irish, bleached.	lb	20	Codliver, White, Norwegian.	gal	1 65
MUSK, Chinese	oz	40	Codliver, white, Norwegian, 5-gal cans.	gal	1 50
Tonquin, grain	dr	3 25	Codliver, white, Newfoundland.	gal	1 40
MUSTARD, Colman's, 4-oz cans.	doz	1 75	Cognac, green.	oz	2 50
Colman's, 16-lb cans.	lb	50	Cologne.	oz	50
Ground, Domestic, 5-lb cans.	lb	18	Copajba.	lb	1 75
NAPHTHALIN, Balls.	lb	5-7	Coriander.	oz	90
Resublimated, Merck's.	lb	27	Cotton Seed (salad), 5-gal can.	gal	1 05
Pure, 1-lb cartons, M. C. W.	lb	27	Cotton Seed (salad), 1-gal can.	gal	1 35
NAPHTHOL, Alpha.	oz	30	Croton, 24-oz bots.	lb	1 50-1 65
Beta.	oz	10	Croton	oz	20
NICKEL, Bromide, Merck's.	oz	32	Cubebs	lb	1 65-1 75
Bromide, 1-oz vials, M.C.W.	oz	29	Ergot, Keith's.	oz	57
Nickel and Ammonia Sulphate, M. C. W.	lb	34	Erigeron, Keith's.	oz	38
Sulphate, 1-oz vials, M. C. W.	oz	9	Erigeron.	lb	1 60
Sulphate, Merck's.	oz	10	Eucalyptus	lb	85
NOSOPHEN.	doz	4 50	Fennel Seed	lb	2 25
NUTGALLS, Aleppo.	lb	30	Fusil, purified.	lb	80
Aleppo, ground.	lb	35	Geranium, Rose, Chris.	oz	75
Aleppo, powd.	lb	35	Hemlock	lb	85
NUTMEGS, Macassar, large.	lb	60	Hydrocarbon.	gal	1 25
Penang, powd.	lb	65	Jasmin, alcoholic.	lb	3 00
NUTS, Areca	lb	30	Juniper Berries.	lb	1 25-1 50
Areca, powd.	lb	40	Juniper, wood.	lb	75
Kola.	lb	35	Lard.	gal	1 10
Kola, powd.	lb	40	Laurel, expressed.	lb	60
NUX VOMICA.	lb	25	Lavender, Flowers	lb	3 85
Powdered or rasped.	lb	25	Lavender, Garden	lb	1 25
OAKUM	lb	15	Lemon	lb	2 75
			Lemon, Sanderson's	lb	3 00
			Lemon, Grass	lb	3 00
			Linseed, raw	gal	70
			Linseed, raw, case.	gal	63

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Linseed, boiled	gal	70	PAPAIN, Boehringer. oz	75
Linseed, boiled, case	gal	65	Merck's. oz	60
Mace, expressed.	lb	1 75	PARAFFINE, refined. lb	12-15
Male Fern, ethereal. oz		35	PARALDEHYDE, Merck's. lb	99
Myrbane. lb		40	Merck's. oz	14
Mullein. oz		45	PARIS GREEN. lb	38-42
Musk, alcoholic. oz	1 00		PASTILLES, Fumigating, black. lb	50
Mustard, essential. oz	50		Fumigating, red lb	50
Mustard, expressed. gal	90		PEARL ASH. lb	8-10
Neatsfoot, No. 1. gal	90		PEEL, Orange, sweet, ground. lb	25
Neroli, Petal. oz	3 00		Orange, bitter, coarse. lb	20
Neroli, Bigarade. oz	5 75		Orange, bitter, powdered. lb	25
Neroli, Petit Grain. oz	55		Orange, sweet, quarters. lb	20
Nutmegs, essential. oz	35		PELLETIERINE, Sulphate, Merck's, 15-gr vial	1 75
Olive, pure, Malaga. gal	1 25		Tannate, Merck's, 15-gr vial.	35
Olive, California. gal	3 00		PEPPER, black, Singapore, sifted. lb	30
Olive, ½-gals. gal	3 25		Black, powd. lb	30
Olive, small doz	3 75		White. lb	40
Olive, large. doz	7 50		White, powd. lb	40
Olive, imported. gal	2 00-2 10		PEPSIN, pure, U. S. P. lb	4 50
Orange, bitter. lb	4 50		Powd. or scales. lb	4 50
Orange, sweet lb	3 25		Powd., Ph. G. III. oz	25
Origanum, pure. lb	60		PEPTONE, Merck's, dry, from meat. oz	34
Origanum, Chris. lb	1 85		PETROLATUM, 1-lb cans. doz	2 00
Palm. lb	25		50-lb pails. lb	7
Patchouly. oz	75		25-lb pails. lb	7½
Pennyroyal lb	4 00		10-lb cans. lb	9
Pepper, black. oz	20		5-lb cans. lb	10
Peppermint, Hotchkiss lb	3 25-3 50		Snow White, 50-lb pails. lb	15½
Peppermint, Wayne Co. lb	2 75-3 00		Snow White, 25-lb pails. lb	16½
Peppermint, Western lb	2 75-3 00		Snow White, 10-lb cans. lb	18
Pimento. oz	30		Snow White, 5-lb cans. lb	25
Pinus, Sylvestris, German. lb	1 50		Snow White, 1-lb cans. lb	30
Pinus, Pumilio. lb	4 50		PHENACETINE. oz	33
Pinus Pumilio. oz	40		PHENILINE. oz	1 00
Rhodium oz	35		PHENOLPHTHALEIN oz	34
Rose, Kizanlik oz	6 25-6 50		PHOSPHORUS, 1-lb cans. lb	85
Rosemary, flowers. lb	1 25-1 50		½-lb cans. lb	95
Rue. oz	40		¼-lb cans. lb	1 05
Sandalwood, English. lb	5 50		Amorphous. lb	1 44
Sandalwood, German. lb	3 00-3 20		PIPERAZIN, Schering's 10-gm vials. bot	1 50
Sassafras. lb	90-1 00		½-oz and 1-oz. oz	4 25
Savin. lb	1 75		PIPERIN, 1-oz vials, Mallinckrodt's. oz	62
Spearmint. lb	4 00		Merck's. oz	62
Sperm. gal	1 00		PIPE CLAY. lb	12
Spike. lb	35		PITCH, Burgundy lb	15
Spruce. lb	85		PITH, Sassafras. lb	1 50
Tansy. lb	4 75		PLATINUM and Barium Cyanide, cr.,	
Tar. lb	25		Merck. gr	15
Thyme, white. lb	1 50		And Potassium Chloride, M's, 15-gr	
Turpentine, pure. lb	55		vials ea	80
Wine, light. oz	40		Chloride, Merck's. oz	18 00
Wine, heavy. oz	50		Chloride, solution, 10%, Merck's. oz	2 82
Wintergreen lb	4 00-4 25		PODOPHYLLIN oz	30
Wormseed. lb	3 75-4 00		POPPY HEADS, German. lb	30
Wormwood lb	4 25-4 50		POTASH, Babbitt's, 4 doz in case. case	3 40
Ylang Ylang. oz	4 50		Caustic, pure, by alcohol. lb	60
OINTMENT, Basilicon. lb	65		Caustic, white. lb	37
Citrine. lb	65		Caustic, 10-lb cans. lb	10-12
Iodine. lb	1 25		Solution (liq. potass.) lb	35
Mercurial, ½ m. lb	65		POTASSIUM, Acetate, Merck's, 1-lb bot. lb	42
Mercurial, ⅓ m. lb	55		Acetate, M. C. W., 1-lb. lb	42
Stramonium. lb	75		Antimonate, Merck's. lb	1 09
Tar. lb	50		Arsenate, 1-oz vials, Merck's. oz	14
Zinc, benzoated. lb	65		Bicarbonate, cryst., M. C. W. lb	20
Zinc, oxide. lb	65		Bicarbonate, cryst., H. P., Merck's. lb	34
OPIUM, powd., Merck's lb	9 00		Bicarbonate, granulated, M. C. W. lb	20
ORTHOFORM. oz	1 40		Bicarbonate, powd. lb	20
PANCREATIN, Merck's, pure. oz	44		Bichromate lb	18-20
Pure, scales, P. D. & Co. oz	50			

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M. C. W. lb	34	Sulphate, 1-oz cans, M.C.W.....oz	28
Bromide, crys. or gran., M. C. W.....lb	32	Sulphate, 5-oz cans, M.C.W.....oz	25
Carbonate, purified, M. C. W.....lb	41	Sulphate, 25-oz cans, M.C.W.....oz	21
Carbonate, bulk. lb	15	Sulphate, 50-oz cans, M.C.W.....oz	20
Caustic, pure, Merck's.....lb	37	Sulphate, 100-oz cans, M.C.W.....oz	18
Caustic, C. P., Merck's.....lb	2 59	Tannate, Neutral, Merck's. oz	38
Chlorate, cryst. lb	16-18	Tannate, 1-oz vials, M.C.W.....oz	37
Chlorate, gran., pure, M. C. W.....lb	22	Valerianate, 1-oz vials, M.C.W.....oz	57
Chlorate, powd. lb	16-18	QUINOLINE, Merck's oz	45
Chromate, yellow, neutral. lb	40	Tartrate, Merck's oz	45
Chromate, yellow, H. P., Merck's.....lb	69	RED SAUNDERS. lb	12
Citrate, M. C. W.....lb	72	RESIN, Jalap, Merck's.....oz	54
Citrate, H. P., Merck's.....lb	1 19	Copaiba. lb	1 50
Cyanide, fused, M. C. W.....lb	45	Scamony oz	40
Cyanide, C. P. 99%.....lb	52	RESORCIN, cryst., Merck's oz	18
Cyanide, Miner's, 10-lb tin.....lb	28	Resublimed, H. P., Merck's.....oz	66
Ferricyanide, chem. pure, M. C. W.....lb	1 04	M. C. W.....lb	1 50
Ferrocyanide, pure, Merck's.....lb	59	M. C. W.....oz	19
Glycerinophosphate.. . . .oz	26	ROOT, Abscess, pressed, lb.....lb	40
Hypophosphite, purified, Merck's.....lb	1 14	Aconite, powd.....lb	35
Hypophosphite, M. C. W.....lb	99	Aconite, pressed.....lb	32
Iodide, M. C. W., 1-lb boxes.....lb	2 52	Alkanet lb	25
Nitrate, cryst. lb	10-12	Alkanet, powd.....lb	30
Nitrate, granulated. lb	10-12	Angelica, pressed lb	20
Nitrate, chemically pure, M. C. W.....lb	30	Angelica, powd lb	25
Oxalate, neutral. lb	28	Arnica, pressed lb	35
Permanganate, cryst., 1-oz vials.....oz	8	Belladonna, pressed, lb. lb	25
Permanganate, large cryst., pure, M.C.W..lb	27	Belladonna, powd.....lb	28
Permanganate, small cryst.....lb	25	Berberis Aquif, pressed, lb.....lb	45
Phosphate, 1-oz vials.....oz	11	Beth, pressed, lb.....lb	30
Phosphate lb	64	Beth, powd lb	35
Prussiate, red. lb	65	Blackberry, pressed, lb.....lb	30
Prussiate, yellow. lb	35	Blood, pressed, lb.....lb	30
Sulphate, cryst. or powd.....lb	16	Blood, powd.....lb	35
Sulphate, chemically pure.....lb	60	Blue Flag, pressed lb	25
Sulphide (Liver Sulphur).....lb	24	Burdock, pressed, lb. lb	25
Sulphurated, Merck's. lb	25	Burdock, powd.....lb	25
Tartrate (soluble Tartar).....lb	59	Calamus, peeled lb	30
POWDER, Antimonial. lb	85	Calamus, white, peeled and split.....lb	50
Aromatic. lb	1 25	Calamus, powd.....lb	35
Carbolic Acid, disinfecting.....doz	1 50	Cohosh, black, pressed. lb	25
Chalk, aromatic. lb	75	Cohosh, black, powd. lb	25
Chalk, compound. lb	75	Cohosh, blue, pressed, lb.....lb	25
Chalk and Opium. lb	2 50	Cohosh, blue, powd.....lb	25
Composition, 2-oz papers.....lb	35	Colchicum lb	28
Dover's lb	1 70	Colchicum, powd lb	35
Insect, Buhach, 6-lb cans.....lb	60	Columbo, foreign. lb	25
Insect, Dalmatian. lb	25-30	Columbo, powd.....lb	25
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Comfrey, pressed, lb. lb	25
Jalap, comp. lb	1 00	Comfrey, powd.....lb	25
Licorice, comp. lb	25	Cranesbill, pressed, lb.....lb	25
Licorice, comp., 2-oz packages.....doz	75	Culvers, pressed, lb.....lb	25
Rhubarb, comp. lb	1 50	Culvers, powd lb	30
Tooth. lb	50	Dandelion, Am., pressed, lb.....lb	35
PROPYLAMIN, 10% solution, Merck's....oz	55	Dandelion, powd. lb	38
Hydrochlorate, 1/8-oz vials. oz	3 50	Dwarf Elder, pressed, lb.....lb	35
PROTARGOL. oz	1 25	Elecampane, pressed, lb. lb	25
PULVIS ANTIMONIALIS. lb	85	Elecampane, powd lb	25
PYOKTANIN, Blue or Yellow, Merck's....oz	1 50	Gelsemium, pressed, lb.....lb	25
PYRIDINE, Merck's. oz	32	Gelsemium, powd lb	25
QUICKSILVER. lb	80	Gentian lb	16
QUINACETINE. oz	85	Gentian, ground lb	20
QUINALGIN. oz	1 25	Gentian, powd lb	20
QUININE, Alkaloid, 1-oz vials, M.C.W...oz	58	Ginger, African. lb	17
Bisulphate, 1-oz vials, M.C.W.....oz	28	Ginger, African, powd lb	18
Bisulphate, 5-oz cans, M.C.W.....oz	26	Ginger, Jamaica, bleached. lb	27
Citrate, 1-oz vials, M.C.W.....oz	57	Ginger, Jamaica, bleached, powd.....lb	30
Muriate, 1-oz vials, M.C.W.....oz	51	Ginseng lb	8 50-10 00
Phosphate, 1-oz vials, M.C.W.....oz	55	Golden Seal lb	1 85
Salicylate, 1-oz vials, M.C.W.....oz	54	Golden Seal, pressed lb	1 90

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Golden Seal, powd. lb	1 90	Turkey Corn lb	28
Hellebore, black, pressed.....lb	25	Unicorn, true, pressed lb	35
Hellebore, black, powd.....lb	25	Unicorn, true, powd lb	40
Hellebore, white, pressed, lb.....lb	25	Unicorn, false, pressed.....lb	40
Hellebore, white, powd.....lb	25	Unicorn, false, powd lb	45
Indian Hemp, black, pressed, lb.....lb	35	Valerian, English, bulk.....lb	35
Indian Hemp, black, powd lb	40	Valerian, English, powd lb	35
Indian Hemp, white, pressed lb	25	Valerian, German lb	30
Indian Hemp, white, powd lb	30	Valerian, German, powd lb	30
Ipecac, Rio, powd.....lb	2 50	Yellow Dock lb	25
Jalap lb	30	Yellow Dock, ground lb	30
Jalap, powd lb	35	Yellow Dock, powd lb	30
Kava Kava lb	50	Zedoary lb	30
Ladies' Slipper, pressed, lb.....lb	75	ROSIN, No. 1. lb	6-8
Licorice, select lb	16	Barrel.	7 75
Licorice, pipestem lb	18	ROUGE, Jewelers' lb	50
Licorice, cut, Russian lb	20	SACCHARIN tin	35
Licorice, powd lb	16-20	SAFFRON, American lb	65
Mandrake, pressed, lb.....lb	30	Spanish. oz	80
Mandrake, powd lb	35	Spanish.....lb	10 00
Marshmallow, cut lb	34	SAL, Acetosella lb	30
Marshmallow, powd lb	35	Epsom lb	2½-5
Musk lb	30	Glauber lb	1½-4
Orris, Florentine lb	25	Nitre lb	10-12
Orris, Florentine, Fingers.....lb	1 25	Nitre, granulated. lb	10-12
Orris, Florentine, granulated.....lb	35	Nitre, powd. lb	10-12
Orris, Florentine, powd.....lb	30	Prunelle lb	45
Pareira Brava, pressed lb	34	Rochelle. lb	28-30
Pink. lb	85	Soda. lb	3-5
Pink, powd. lb	90	Tartar. lb	15
Pleurisy, pressed lb	25	SALICINE, Merck's.....oz	37
Poke, pressed lb	25	Salicine lb	4 60
Poke, powd lb	20	SALIPYRINE oz	1 00
Pond Lily, white, pressed lb	40	SALOL, Mallinckrodt's.....oz	15
Pond Lily, white, powd lb	40	Salol, Mallinckrodt's, cartons lb	1 17
Pond Lily, yellow, pressed lb	30	Salol, Merck's lb	1 25
Pond Lily, yellow, powd lb	35	Salol, Merck's oz	15
Rhatany lb	30	SALOPHEN oz	1 00
Rhatany, powd lb	35	SANTONIN, bulk, M.C.W. lb	14 09
Rhubarb, East India lb	75	Cryst., Merck's oz	99
Rhubarb, East India, powd lb	75	1-oz vials, M.C.W. oz	99
Rhubarb, cut in cubes, No. 1.....lb	1 25	SEED, Angelica lb	25
Rhubarb, cut in cubes, No. 2.....lb	1 00	Anise, Italian lb	20
Rhubarb, cut in fingers, No. 1.....lb	1 50	Anise, Italian, powd.....lb	25
Rhubarb, cut in fingers, No. 2.....lb	1 25	Anise, Star lb	45
Salep, powd lb	1 00	Bird, mixed, bulk. lb	8
Sarsaparilla, American lb	30	Bird, mixed, boxes. doz	1 00
Sarsaparilla, American, powd lb	30	Bird, mixed, cases, 30 pks.....	2 25
Sarsaparilla, Honduras lb	70	Burdock lb	25
Sarsaparilla, Honduras, ground lb	75	Canary lb	9-10
Sarsaparilla, Honduras, powd lb	75	Caraway, Dutch. lb	15
Sarsaparilla, Mexican lb	25	Caraway, powd. lb	17
Sarsaparilla, Mexican, ground lb	25	Cardamon, Malabar. lb	1 00
Sarsaparilla, Mexican, powd lb	30	Cardamon, Mangalor, bleached.....lb	1 25
Senega, pressed lb	80	Cardamon, powd. lb	1 00
Senega, powd. lb	85	Celery lb	25
Silkweed, pressed lb	28	Colchicum. lb	50
Skunk Cabbage, pressed lb	30	Colchicum, powd. lb	55
Skunk Cabbage, powd lb	35	Conium lb	25
Snake, Canada, pressed.....lb	65	Coriander, German. lb	14
Snake, Virginia lb	65	Coriander, German, powd lb	20
Snake, Virginia, powd lb	70	Cumin lb	18-20
Spikenard, pressed lb	72	Dill lb	25
Spikenard, powd lb	30	Fennel. lb	18
Squills, white, sliced. lb	20	Fennel, powd. lb	20
Squills, powd lb	60	Flax, recleaned. lb	5½-6
Stillingia, pressed lb	25	Flax, ground. lb	5½-6
Stillingia, powd lb	30	Flax Oil Cake lb	2½-3½
Stone, pressed lb	25	Foenugreek, powd lb	12
Sweet Flag, pressed lb	25	Hemp, recleaned lb	6½-8

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Henbane	lb	35	Cacodylate, Merck's	oz	84
Larkspur.	lb	55	Carbonate, pure cryst., 1-lb car., M. C. W.	lb	11
Lobelia.....	lb	60	Carbonate, pure gran., 1-lb car., M. C. W.	lb	11
Lobelia, powd.	lb	65	Carbonate, dried, C. P., 1-lb car.....	lb	27
Millet, American.	lb	6-8	Cinnamate	oz	59
Mustard, black, Trieste	lb	10-12	Citrate, M. C. W.....	lb	74
Mustard, white	lb	10-10	Glycerophosphate, 75%, Merck's.....	oz	24
Poppy Blue	lb	16	Glycocholate.	oz	1 04
Pumpkin	lb	22	Hypophosphite, purified, Merck's.....	lb	1 14
Rape, California.	lb	6-8	Hypophosphite, 1-oz vials, Merck's.....	oz	15
Sabadilla	lb	35	Hyposulphite, 112-lb kegs.	lb	3
Sabadilla, powd	lb	30-35	Hyposulphite, less	lb	5
Stavesacre	lb	40	Iodide, 1-oz vials, M. C. W.....	oz	31
Stavesacre, powd	lb	45	Iodide, H. P., Merck's.....	oz	31
Stramonium	lb	25	Iodide, M. C. W.....	lb	3 53
Stramonium, powd	lb	30	Nitrate, cryst., C. P.....	lb	29
Sunflower	lb	15	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Watermelon	lb	25	Phosphate, pure, recryst., bulk.....	lb	12
Worm, American	lb	25	Phosphate, gran., pure, M. C. W.....	lb	13
Worm, American, powd	lb	25	Phosphate, dried, powd.....	lb	24
Worm, Levant	lb	35	Salicylate, Merck's	lb	49
Worm, Levant, powd	lb	40	Santoninate, Merck's	oz	89
SEIDLITZ MIXTURE	lb	28-30	Succinate	oz	69
SILVER, Bromide, 1-oz. vials, M. C. W.....	oz	1 19	Sulphate, Glauber Salts.....	lb	3-5
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, dried	lb	18-20
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphite, crystals	lb	10
Lactate, Merck's	oz	1 04	Sulphite, granulated	lb	18
Nitrate, cryst., 1-oz vials, M.C.W.....	oz	58	Sulphite, dry, Merck's.....	lb	22
Nitrate, cones, 1-oz vials.....	oz	70	Tartrate, Merck's	lb	64
Nitrate, fused (Lunar caustic), 1-oz vials, M. C. W.....	oz	61	SOLUTIONS, Donovan's	lb	34
Nitrate, fused, No. 2, 1-oz vials.....	lb	47	Fowler's	lb	30
SNUFF, Garrett's, 1-oz tins.....	doz	60	Goulard's	lb	35
Garrett's, 1 2/3-oz tins.	doz	1 10	Nitrate, Iron	lb	50
Garrett's, 3 1/3-oz tins.....	doz	1 75	Mercury, Nitrate	oz	20
Garrett's, 6-oz bots.....	doz	3 25	Monrel's	lb	50
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Tin, Chloride	lb	35
Rappee	lb	65	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Rappee, 3 1/3-oz bots.....	doz	2 00	Somatose, Ferro, 2-oz tins.....	doz	10 50
Scotch, Lorillard's	lb	65	Somatose, 2-oz tins.....	doz	8 25
Scotch, Lorillard's	doz	2 00	Somatose, 1 1/4-lb tins.....	lb	5 25
Scotch, Garrett's Bladders.....	lb	55	Somatose, 1 1/2-lb tins.....	lb	5 00
SOAP, Castile, Conti's, white, box 14c less..	lb	17	SOZOIODOL, Mercury, Merck's.....	oz	1 15
Castile, mottled, box 8 1/2c; less.....	lb	12	Potassium, Merck's	oz	75
Castile, Kirk's (San Bernaldo) white, 18 bars	per box	3 00	Sodium, Merck's	oz	80
Castile, powdered, white.....	lb	35	Zinc, Merck's	oz	1 10
Green, German	lb	25	SPARTEINE, Sulphate, Merck's, 1/8s.....	oz	83
Opodeldoc	lb	65	Sulphate, 15-gr. vials.....	ea	12
SODA, Ash.	lb	2 1/2-5	SPERMACETI, in cakes.....	lb	42-45
Caustic, Sticks, Merck's.....	lb	34	SPIRIT, Ammonia	lb	75
Caustic, com., drums.....	lb	3-4	Ammonia, aromatic.	lb	85
Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2	Camphor	lb	75
Caustic, purified, fused.....	lb	40	Chloroform, U. S. P.....	lb	75
Sal (carbonate) bbls., 1 1/4c.....	lb	3	Lavender	lb	60
Soda Silicate, dry	lb	35	Nitre, U. S. P., 1-lb bots.....	lb	65
Soda Silicate, liquid.....	lb	15-25	Nitre, U. S. P., 4-lb bots.....	lb	58
SODIUM, 1-oz vials, M. C. W.....	oz	25	Nutmeg.	lb	75
Acetate, M. C. W., carton.....	lb	17	Pimento.	lb	65
Arsenate, 1-oz vials.....	oz	9	Rosemary.	lb	65
Arsenite, 1-oz vials, M. C. W.....	oz	10	STEARIN	lb	20
Benzoate, 1-oz vials, M. C. W.....	oz	11	STONE, Pumice, select.....	lb	10
Benzoate, 1-lb bots.	lb	56	Pumice, select, powd.....	lb	8-10
Benzqate, true fr. Gum Benzoin, Merck's.....	oz	29	Rotten	lb	12-15
Bicarbonate, C. P., powd., M. C. W.....	lb	15	Rotten, powd	lb	10
Bicarbonate, kegs, 3c.....	lb	4-5	Soap, cut	lb	18
Bisulphite, dry, pure, Merck's.....	lb	27	Soap, powd	lb	8
Borate, neutral, Merck's.....	oz	19	STRONTIUM, Bromide, cryst., M. C. W.....	oz	11
Bromide, M. C. W.	lb	35	Carbonate, M. C. W.....	lb	27
			Hypophosphite, M. C. W.....	oz	29
			Iodide, 1-oz vial, M. C. W.....	oz	30

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Retake of Preceding

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THE PACIFIC PHARMACIST

Golden Seal, powd. lb	1 90	Turkey Corn lb	28
Hellebore, black, pressed.....lb	25	Unicorn, true, pressed lb	35
Hellebore, black, powd.....lb	25	Unicorn, true, powd lb	40
Hellebore, white, pressed, lb.....lb	25	Unicorn, false, pressed.....lb	40
Hellebore, white, powd.....lb	25	Unicorn, false, powd lb	45
Indian Hemp, black, pressed, lb.....lb	35	Valerian, English, bulk.....lb	35
Indian Hemp, black, powd lb	40	Valerian, English, powd lb	35
Indian Hemp, white, pressed lb	25	Valerian, German lb	30
Indian Hemp, white, powd lb	30	Valerian, German, powd lb	30
Ipecac, Rio, powd.....lb	2 50	Yellow Dock lb	25
Jalap lb	30	Yellow Dock, ground lb	30
Jalap, powd lb	35	Yellow Dock, powd lb	30
Kava Kava lb	50	Zedoary lb	30
Ladies' Slipper, pressed, lb.....lb	75	ROSIN, No. 1. lb	6-8
Licorice, select lb	16	Barrel.	7 75
Licorice, pipestem lb	18	ROUGE, Jewelers' lb	50
Licorice, cut, Russian lb	20	SACCHARIN tin	35
Licorice, powd lb	16-20	SAFFRON, American lb	65
Mandrake, pressed, lb.....lb	30	Spanish. oz	80
Mandrake, powd lb	35	Spanish.....lb	10 00
Marshmallow, cut lb	34	SAL, Acetosella lb	30
Marshmallow, powd lb	35	Epsom lb	2½-5
Musk lb	30	Glauber lb	1½-4
Orris, Florentine lb	25	Nitre lb	10-12
Orris, Florentine, Fingers.....lb	1 25	Nitre, granulated. lb	10-12
Orris, Florentine, granulated.....lb	35	Nitre, powd. lb	10-12
Orris, Florentine, powd.....lb	30	Prunelle lb	45
Pareira Brava, pressed lb	34	Rochelle. lb	28-30
Pink. lb	85	Soda. lb	3-5
Pink, powd. lb	90	Tartar. lb	15
Pleurisy, pressed lb	25	SALICINE, Merck's.....oz	37
Poke, pressed lb	25	Salicine lb	4 60
Poke, powd lb	20	SALIPYRINE oz	1 00
Pond Lily, white, pressed lb	40	SALOL, Mallinckrodt's.....oz	15
Pond Lily, white, powd lb	40	Salol, Mallinckrodt's, cartons lb	1 17
Pond Lily, yellow, pressed lb	30	Salol, Merck's lb	1 25
Pond Lily, yellow, powd lb	35	Salol, Merck's oz	15
Rhatany lb	30	SALOPHEN oz	1 00
Rhatany, powd lb	35	SANTONIN, bulk, M.C.W. lb	14 09
Rhubarb, East India lb	75	Cryst., Merck's oz	99
Rhubarb, East India, powd lb	75	1-oz vials, M.C.W. oz	99
Rhubarb, cut in cubes, No. 1.....lb	1 25	SEED, Angelica lb	25
Rhubarb, cut in cubes, No. 2.....lb	1 00	Anise, Italian lb	20
Rhubarb, cut in fingers, No. 1.....lb	1 50	Anise, Italian, powd.....lb	25
Rhubarb, cut in fingers, No. 2.....lb	1 25	Anise, Star lb	45
Salep, powd lb	1 00	Bird, mixed, bulk. lb	8
Sarsaparilla, American lb	30	Bird, mixed, boxes. doz	1 00
Sarsaparilla, American, powd lb	30	Bird, mixed, cases, 30 pks.....	2 25
Sarsaparilla, Honduras lb	70	Burdock lb	25
Sarsaparilla, Honduras, ground lb	75	Canary lb	9-10
Sarsaparilla, Honduras, powd lb	75	Caraway, Dutch. lb	15
Sarsaparilla, Mexican lb	25	Caraway, powd. lb	17
Sarsaparilla, Mexican, ground lb	25	Cardamon, Malabar. lb	1 00
Sarsaparilla, Mexican, powd lb	30	Cardamon, Mangalor, bleached.....lb	1 25
Senega, pressed lb	80	Cardamon, powd. lb	1 00
Senega, powd. lb	85	Celery lb	25
Silkweed, pressed lb	28	Colchicum. lb	50
Skunk Cabbage, pressed lb	30	Colchicum, powd. lb	55
Skunk Cabbage, powd lb	35	Conium lb	25
Snake, Canada, pressed.....lb	65	Coriander, German. lb	14
Snake, Virginia lb	65	Coriander, German, powd lb	20
Snake, Virginia, powd lb	70	Cumin lb	18-20
Spikenard, pressed lb	72	Dill lb	25
Spikenard, powd lb	30	Fennel. lb	18
Squills, white, sliced. lb	20	Fennel, powd. lb	20
Squills, powd lb	60	Flax, recleaned. lb	5½-6
Stillingia, pressed lb	25	Flax, ground. lb	5½-6
Stillingia, powd lb	30	Flax Oil Cake lb	2½-3½
Stone, pressed lb	25	Foenugreek, powd lb	12
Sweet Flag, pressed lb	25	Hemp, recleaned lb	6½-8

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Henbane	lb	35	Cacodylate, Merck's	oz	84
Larkspur.	lb	55	Carbonate, pure cryst., 1-lb car., M. C. W.	lb	11
Lobelia.....	lb	60	Carbonate, pure gran., 1-lb car., M. C. W.	lb	11
Lobelia, powd.	lb	65	Carbonate, dried, C. P., 1-lb car.....	lb	27
Millet, American.	lb	6-8	Cinnamate	oz	59
Mustard, black, Trieste	lb	10-12	Citrate, M. C. W.....	lb	74
Mustard, white	lb	10-10	Glycerophosphate, 75%, Merck's.....	oz	24
Poppy Blue	lb	16	Glycocholate.	oz	1 04
Pumpkin	lb	22	Hypophosphite, purified, Merck's.....	lb	1 14
Rape, California.	lb	6-8	Hypophosphite, 1-oz vials, Merck's.....	oz	15
Sabadilla	lb	35	Hyposulphite, 112-lb kegs.	lb	3
Sabadilla, powd	lb	30-35	Hyposulphite, less	lb	5
Stavesacre	lb	40	Iodide, 1-oz vials, M. C. W.....	oz	31
Stavesacre, powd	lb	45	Iodide, H. P., Merck's.....	oz	31
Stramonium	lb	25	Iodide, M. C. W.....	lb	3 53
Stramonium, powd	lb	30	Nitrate, cryst., C. P.....	lb	29
Sunflower	lb	15	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Watermelon	lb	25	Phosphate, pure, recryst., bulk.....	lb	12
Worm, American	lb	25	Phosphate, gran., pure, M. C. W.....	lb	13
Worm, American, powd	lb	25	Phosphate, dried, powd.....	lb	24
Worm, Levant	lb	35	Salicylate, Merck's	lb	49
Worm, Levant, powd	lb	40	Santoninate, Merck's	oz	89
SEIDLITZ MIXTURE	lb	28-30	Succinate	oz	69
SILVER, Bromide, 1-oz. vials, M. C. W.....	oz	1 19	Sulphate, Glauber Salts.....	lb	3-5
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, dried	lb	18-20
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphite, crystals	lb	10
Lactate, Merck's	oz	1 04	Sulphite, granulated	lb	18
Nitrate, cryst., 1-oz vials, M.C.W.....	oz	58	Sulphite, dry, Merck's.....	lb	22
Nitrate, cones, 1-oz vials.....	oz	70	Tartrate, Merck's	lb	64
Nitrate, fused (Lunar caustic), 1-oz vials, M. C. W.....	oz	61	SOLUTIONS, Donovan's	lb	34
Nitrate, fused, No. 2, 1-oz vials.....	lb	47	Fowler's	lb	30
SNUFF, Garrett's, 1-oz tins.....	doz	60	Goulard's	lb	35
Garrett's, 1 3/4-oz tins.	doz	1 10	Nitrate, Iron	lb	50
Garrett's, 3 1/3-oz tins.....	doz	1 75	Mercury, Nitrate	oz	20
Garrett's, 6-oz bots.....	doz	3 25	Monsel's	lb	50
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Tin, Chloride	lb	35
Rappee	lb	65	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Rappee, 3 1/3-oz bots.....	doz	2 00	Somatose, Ferro, 2-oz tins.....	doz	10 50
Scotch, Lorillard's	lb	65	Somatose, 2-oz tins.....	doz	8 25
Scotch, Lorillard's	doz	2 00	Somatose, 1 1/4-lb tins.....	lb	5 25
Scotch, Garrett's Bladders.....	lb	55	Somatose, 1 1/2-lb tins.....	lb	5 00
SOAP, Castile, Conti's, white, box 14c less..	lb	17	SOZOIODOL, Mercury, Merck's.....	oz	1 15
Castile, mottled, box 8 1/2c; less.....	lb	12	Potassium, Merck's	oz	75
Castile, Kirk's (San Bernaldo) white, 18 bars	per box	3 00	Sodium, Merck's	oz	80
Castile, powdered, white.....	lb	35	Zinc, Merck's	oz	1 10
Green, German	lb	25	SPARTEINE, Sulphate, Merck's, 1/8s.....	oz	83
Opodeldoc	lb	65	Sulphate, 15-gr. vials.....	ea	12
SODA, Ash.	lb	2 1/2-5	SPERMACETI, in cakes.....	lb	42-45
Caustic, Sticks, Merck's.....	lb	34	SPIRIT, Ammonia	lb	75
Caustic, com., drums.....	lb	3-4	Ammonia, aromatic.	lb	85
Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2	Camphor	lb	75
Caustic, purified, fused.....	lb	40	Chloroform, U. S. P.....	lb	75
Sal (carbonate) bbls., 1 1/4c.....	lb	3	Lavender	lb	60
Soda Silicate, dry	lb	35	Nitre, U. S. P., 1-lb bots.....	lb	65
Soda Silicate, liquid.....	lb	15-25	Nitre, U. S. P., 4-lb bots.....	lb	58
SODIUM, 1-oz vials, M. C. W.....	oz	25	Nutmeg.	lb	75
Acetate, M. C. W., carton.....	lb	17	Pimento.	lb	65
Arseniate, 1-oz vials.....	oz	9	Rosemary.	lb	65
Arsenite, 1-oz vials, M. C. W.....	oz	10	STEARIN	lb	20
Benzoate, 1-oz vials, M. C. W.....	oz	11	STONE, Pumice, select.....	lb	10
Benzoate, 1-lb bots.	lb	56	Pumice, select, powd.....	lb	8-10
Benzoate, true fr. Gum Benzoin, Merck's.....	oz	29	Rotten	lb	12-15
Bicarbonate, C. P., powd., M. C. W.....	lb	15	Rotten, powd	lb	10
Bicarbonate, kegs, 3c.....	lb	4-5	Soap, cut	lb	18
Bisulphite, dry, pure, Merck's.....	lb	27	Soap, powd	lb	8
Borate, neutral, Merck's.....	oz	19	STRONTIUM, Bromide, cryst., M. C. W.....	oz	11
Bromide, M. C. W.	lb	35	Carbonate, M. C. W.....	lb	27
			Hypophosphite, M. C. W.....	oz	29
			Iodide, 1-oz vial, M. C. W.....	oz	30

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Lactate, Merck's	oz	16	TANNOFORM, Merck's	oz	22
Muriate, M. C. W.	lb	32	TANNOPINE	oz	75
Nitrate, pure, dried, Merck's	lb	59	Veterinary	oz	25
Salicylate, M. C. W.	lb	83	TAR, Barbadoes	lb.	25
Sulphate, M. C. W.	lb	69	Coal	gal	25
STYPTICIN, Merck's	oz	6 50	Pine, bulk	gal	40
STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.	oz	1 70	Pine, 1/2-lb cans	doz	75
Arsenate, 1/8-oz vials, M. C. W.	oz	1 70	Pine, 1-lb cans	doz	90
Bromide, 1/8-oz vials, M. C. W.	oz	1 70	Pine, 2-lb cans	doz	1 50
Citrate, 1/8-oz vials, M. C. W.	oz	1 70	Pine, gal cans	doz	6 00
Crystals, 1/8-oz vials, M. C. W.	oz	1 45	TARTAR EMETIC, M. C. W.	lb	54
Hypophosphite, 1/8-oz vials, M. C. W.	oz	1 95	TEREBENE, 1-lb bottles.	lb	79
Muriate, 1/8-oz vials, M. C. W.	oz	1 70	Merck's	oz	14
Nitrate, 1/8-oz vials, M. C. W.	oz	1 70	TERPIN HYDRATE, cryst., Merck's	oz	10
Phosphate, 1/8-oz vials, M. C. W.	oz	1 80	Pounds, Merck's	lb	60
Sulphate, 1/8-oz vials, M. C. W.	oz	1 40	TERPINOL, Liquid, Merck's	oz	47
Sulphate, 1-oz vials, M. C. W.	oz	1 20	THEOBROMINE, Alkaloid, Merck's	oz	90
Crystals, 1-oz vials	oz	90	And Sodium Salicylate, Merck's	oz	60
Crystals, in bulk	oz	85	THIOL, dry	oz	1 00
Powdered, in bulk	oz	80	Liquid.	oz	40
Powdered, 1/8-oz vials	oz	1 05	THYMOL, 1-oz vials, Merck's	oz	25
Powdered, 1-oz vials	oz	85	Pounds	lb	2 90
STYRAX, liquid, ...	lb	60	THYROIDIN, Merck's	oz	1 30
SUGAR, burnt	lb	25	TIN, Chloride, Merck's	lb	53
Grape.	lb	25	Metallic, feathered	lb	1 00
Milk, crystals	lb	30	Muriate, solution	lb	35
Milk, powd., bulk	lb	23	Oxide, white, pure, Merck's	lb	99
Milk, powd., M.C.W., 1-lb cartons	lb	25	TINCTURE, Aconite Leaves	lb	65
SULFONAL, 1-oz vials	oz	1 35	Aconite Root	lb	75
SULPHON-ETHYL-METHANE	oz	75	Aconite Root, Fleming's	lb	90
SULPHON-METHANE	oz	60	Aloes	lb	65
SULPHUR, California, ground, 110-lb bags	lb	2	Aloes and Myrrh	lb	65
Flowers	lb	5	Arnica	lb	65
Flowers, in bags	lb	2 3/4-3	Asafœtida	lb	65
Iodide, Merck's	oz	38	Belladonna	lb	65
Lac., precip.	lb	18	Benzoin	lb	75
Roll, bbl.	lb	2 3/4-5	Benzoin, comp.	lb	75
Sicily, ground.	lb	5	Blood Root	lb	65
Strips	lb	15	Buchu	lb	65
Washed	lb	15	Cantharides	lb	75
SUMAC.	lb	10	Capsicum	lb	65
SYRUP, Ginger, U. S. P.	lb	65	Cardamom	lb	75
Hydriodic Acid	lb	70	Cardamom, comp.	lb	75
Iron Iodide	lb	65	Catechu, comp.	lb	75
Ipecac	lb	60	Cinchona, comp.	lb	75
Laetucarium	lb	1 00	Cinnamon	lb	65
Orange Peel	lb	65	Colchicum Root	lb	75
Rhubarb	lb	60	Colchicum Seed	lb	75
Rhubarb, Aromatic	lb	65	Columbo	lb	60
Rhubarb and Potash	lb	65	Conium	lb	65
Sarsaparilla	lb	65	Cubebs	lb	65
Sarsaparilla, comp.	lb	65	Digitalis	lb	65
Senna	lb	65	Ergot	lb	75
Senega, U. S. P.	lb	65	Ergot, ethereal	lb	80
Simple	lb	35	Galls	lb	60
Squill	lb	60	Gelsemium	lb	75
Squill, comp.	lb	60	Gentian	lb	60
Stillingia, comp.	lb	60	Gentian, comp.	lb	65
Tolu	lb	60	Ginger	lb	65
Wild Cherry	lb	60	Guaiac	lb	75
Yerba Santa comp.	lb	65	Guaiac, ammoniated	lb	75
TALCUM, powdered	lb	6-8	Guaiac, Dewees'	lb	75
Purified	lb	20-25	Hyoscyamus	lb	65
TAMARINDS, pound bottles	lb	25	Iodine.	lb	1 40
Keg	ea	4 50	Iodine, colorless.	lb	1 40
Pulp	lb	50	Iodine, comp.	lb	1 40
TANNALBIN.	oz	85	Iodine, Churchill's.	lb	1 75
TANNIN, 1-lb cartons, incl.	lb	85-90	Ipecac	lb	80
1-oz cartons, incl.	oz	12	Iron Acetate	lb	65
TANNIGEN	oz	75	Iron Chloride	lb	50

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Iron Citro-Chloride	lb	65	WAX, Bayberry	lb	45
Jalap	lb	65	Bees, yellow, refined.	lb	37-40
Kino	lb	75	Bees, yellow, oz.	lb	45
Lobelia	lb	60	Bees, white, extra.	lb	60
Lobelia, ethereal	lb	65	Bees, white, No. 1.	lb	55
Myrrh	lb	75	Bowdlear's 1-lb cartons	doz	4 20
Myrrh and Capsicum	lb	75	Fruit, can, red.	lb	8
Nux Vomica	lb	65	Fruit, can, white	lb	8
Opium	lb	1 25	Japan	lb	18-20
Opium, camphorated	lb	60	WAX, FLOOR	lb	25-38
Opium, deodorized	lb	1 30	Johnson's, 1-lb cartons	doz	4 00
Orange Peel	lb	65	Johnson's, ½-lb cartons	doz	2 25
Quassia	lb	60	Johnson's, ¼-lb cartons	doz	1 40
Rhatany	lb	60	WHITING, Gilders'	lb	3
Red Saunders	lb	65	Spanish	lb	2½
Rhubarb	lb	65	WINE, Antimony	lb	65
Rhubarb, Aqueous	lb	60	Aromatic	lb	65
Rhubarb, Aromatic	lb	70	Colchicum Root	lb	75
Rhubarb, comp.	lb	65	Colchicum Seed	lb	65
Rhubarb, Sweet	lb	65	Ergot	lb	1 25
Rhubarb and Aloes	lb	65	Ipecac	lb	1 25
Rhubarb and Senna	lb	65	WOOD, Brazil, ground	lb	10
Senna	lb	65	Camwood	lb	10
Senna, comp.	lb	65	Fustic, cut	lb	3½-5
Serpentaria	lb	65	Fustic, ground	lb	6
Stramonium Leaves	lb	65	Guaiaac, rasped	lb	10
Stramonium Seed	lb	65	Hypernic.	lb	8-10
Strophanthus	lb	1 25	Logwood, chip.	lb	8-10
Tolu	lb	75	Logwood, ground.	lb	8-10
Valerian	lb	65	Nic.	lb	8-10
Valerian, ammoniated	lb	85	Quassia, chip.	lb	15
Veratrum Viride	lb	65	Quassia, ground.	lb	18
Warburg's	lb	1 75	Quassia, powdered.	lb	18
TRIKRESOL, S. & G.	lb	60	Red Sanders, ground.	lb	12
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TRIONAL	oz	1 50	XANTHOXYLIN, Keith's	oz	1 13
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In case	gal	90	Acetate, 1-lb bottles, M. C. W.	lb	43
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Venice	lb	35	Benzoate, 1-oz vials, M. C. W.	oz	24
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Sulphate, 1-oz vials, Merck's	oz	47	Chloride, granulated, Merck's	lb	33
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Tablets, 20 in box	box	25	Hypophosphite, 1-oz vials, Merck's	oz	29
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Tablets, 100s	ea	2 25	Phosphide, Merck's	oz	23
VERDIGRIS	lb	40	Sulphate, cryst.	lb	8-10
Powdered	lb	45	Sulphate, cryst., chemically pure	lb	18
WATER, Cherry, Laurel	pt	50	Sulphide, 1-oz vials, M. C. W.	oz	16
Chlorine	lb	40	Sulphocarbonate, M. C. W.	lb	59
Distilled.	gal	8	Sulphocarbonate, 1-oz vials, M. C. W.	oz	11
Elder Flower	lb	50	Sulphate, H. P., Merck's	lb	15
Orange Flower, triple	lb	35	Sulphate, dried, H. P., Merck's	lb	25
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Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75	Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
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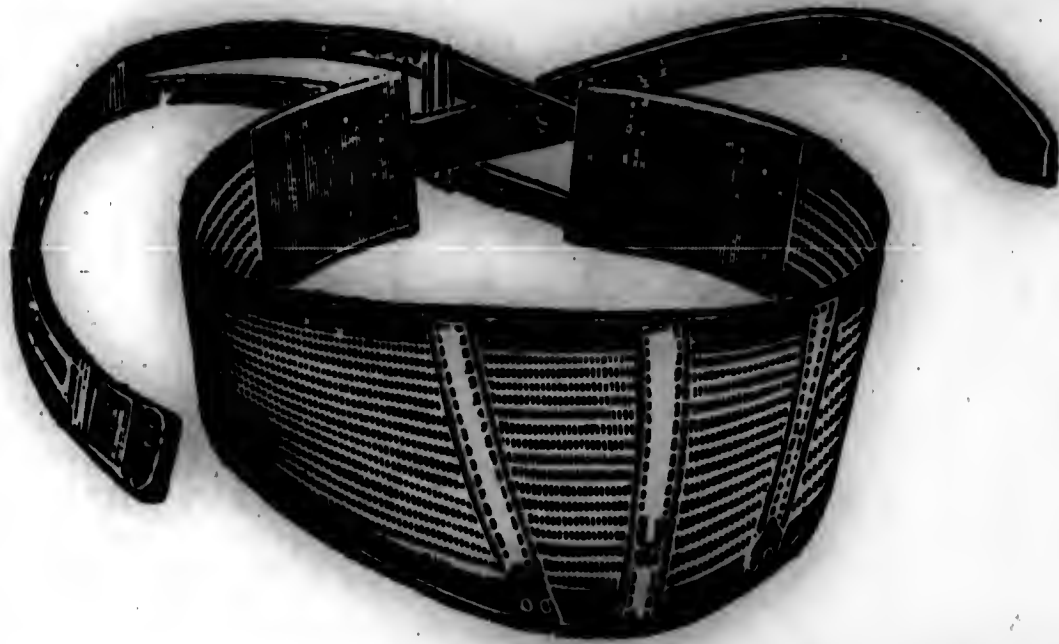
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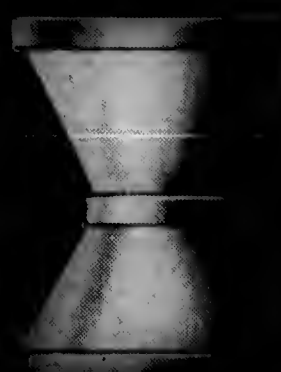
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NOV 29 1907

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VOL. 1

OCTOBER, 1907

No. 6

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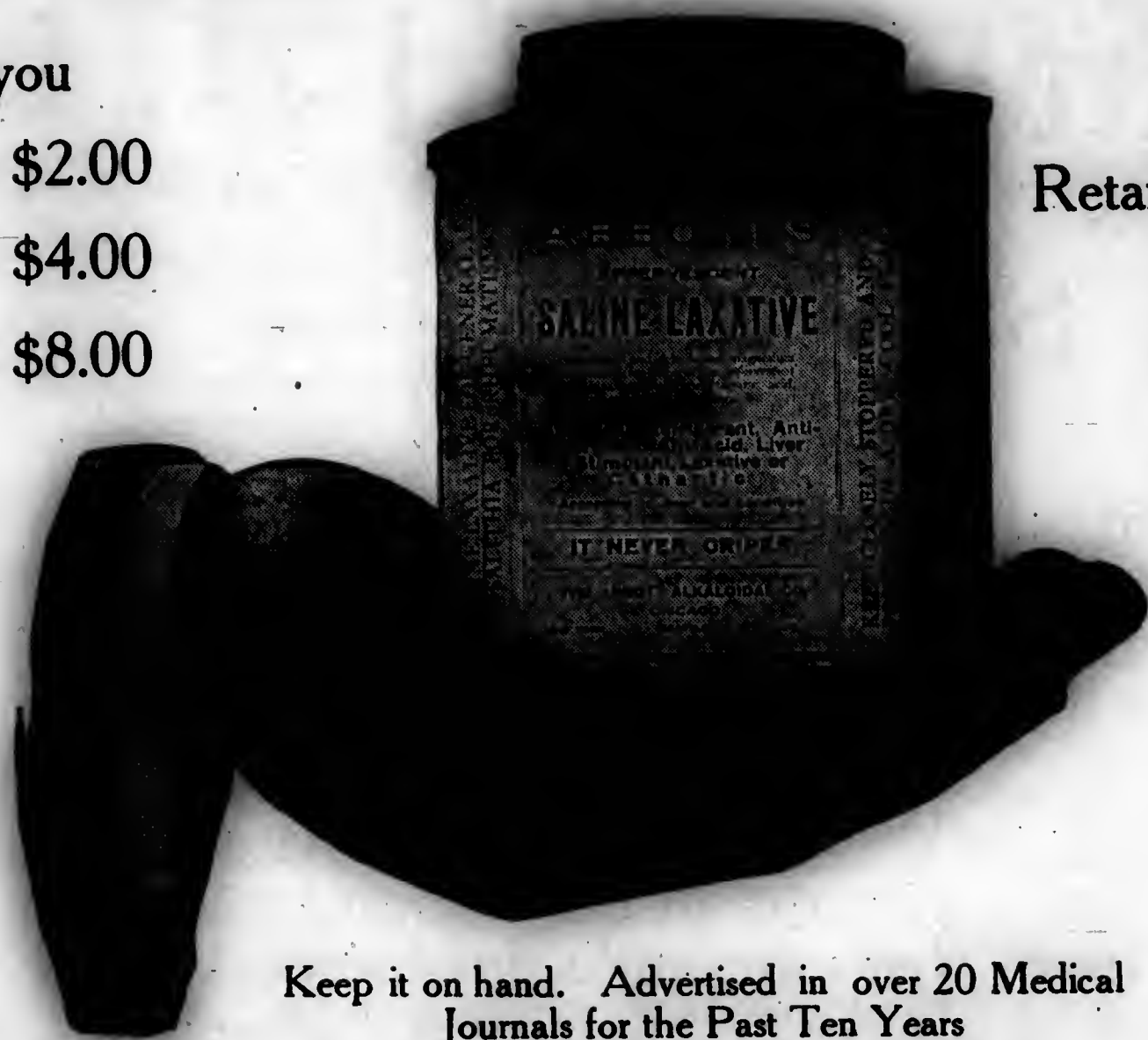
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OCTOBER, 1907

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PREPARATION FOR COLLEGE

In our last issue we published in full a lengthy paper read by Dr. Otto A. Wall at the meeting of the American Pharmaceutical Association, in which he tried to show "why we should not demand a High School prerequisite for Colleges of Pharmacy," and in this number Dr. Albert Schneider replies to some of the positions taken by the former writer. This subject has been much debated for some years, and the discussion has been intensified by the action of the American Conference of Pharmaceutical Faculties and of the Board of Regents of the State of New York in connection with the pharmacy law of that State.

The Conference established as a condition of membership in that body that the Colleges composing it should require of all matriculates the completion of one year's high school work or its equivalent. It was shown that a number of the Southern and Southwestern States could not meet this condition, because there were not many high schools in those States, and only a small number of high school students. The Conference upon this showing exempted the Colleges of Pharmacy within those States from this requirement, but left it in operation as affecting the Colleges in all other States. Dr. Wall has written

several articles upon this subject, in one of which he sought to show that even in the State of New York there were many localities where boys could not get a High School education, and that therefore the requirement was unjust, because it shut some persons out of the Colleges of Pharmacy. In his last paper he appears to be anxious to show that the whole high school requirement, even of one year's work, is unnecessary, and therefore should be abolished.

We have not space to reply to all the points in Dr. Wall's arguments that we cannot accept, but call attention to two particulars in which he shoots beside the mark:

1. He speaks of "high school attendance" as being demanded by the Conference. This is a mistake. The Conference requirement is "one year's high school work, or its equivalent." This means one year's high school **qualification**, no matter how or where obtained. If a boy cannot attend a high school, he can certainly take the same studies elsewhere, with or without a teacher, according to his circumstances. In most cases an ambitious lad will find a teacher to assist him in his studies, but the writer knows from personal experience that this is not absolutely necessary in many subjects, for he passed with credit examinations in subjects in which he did not have the help of a teacher. If he had had teachers, he would doubtless have learned those things better and **with much less effort**, but it may fairly be questioned whether he would have gained in the process as much mental power. And this is just the object of this preliminary education, the development of the mental **powers** of the student. In most of the States, opportunity for obtaining this mental development is given free of cost, and the

advocates of the high school prerequisite recommend young men to get this qualification where it can be **best and most cheaply** obtained, that is, in public high schools.

It is alleged by some who oppose the view here presented, that the High School curriculum includes many things that are of no use to the pharmacist. That may be true. For instance, studies in "The Lady of the Lake" have no direct bearing on pharmacy. Yet the ability to master that work is an indication of ability to master any similar work. The facts, histories, biographies, the composition and rhetoric, "the English" of that book is of no more value to him than such things found in a score of other works. It is simply selected to test and develop his mentality in a certain line. Algebra, geometry and similar studies may not be much used by the pharmacist, but he may need them, and the **mental power** which their study develops is invaluable in the study of Chemistry and other sciences. He can get this power for nothing in the public schools. Having acquired it, he will make better progress as a student in pharmacy.

2. Another weak position in Dr. Wall's paper is the apparent conclusion that, if a young man cannot get high school education easily, he should not be expected to bother himself about it. As we were anxious to make only such statements as could be verified, we made inquiries of Mr. Edward Hyatt, State Superintendent of Public Instruction, as to the possibility of every one who wanted a high school education in California obtaining it, and received the following reply:

"I do not think that your requirements of two years' high school study render it impossible for many people to qualify themselves to enter your

school. Hardly any one in California now is out of reach of a high school, except in a few of the remote mountain counties, where the population is very scanty."

We also sent a number of queries to Mr. Elisha Brooks, who for many years was principal of one of our City High Schools, but who has lived in other parts of the State and is familiar with conditions.

We asked: "Is it true or nearly true that any strong healthy boy or girl in California can obtain a High School education if he or she is in dead earnest to get it? What limitations must be placed upon such a statement?"

His answer: "True. Burden of parent's family might modify in ex-

treme cases. Any one who cannot compass a high school education in this State has not character enough, in my estimation, to make a fair pharmacist."*

We concur with our friend's last remark. "Where there's a will there's a way," in California, at any rate, with but very few exceptions. In this State it is not a question of the poor boy against the rich boy. Any lad in good health who does not have others dependent upon him for support can earn enough money to go through college if he grits his teeth and says, "I will."

*Next month we expect to publish a very condensed account of the way in which this gentleman obtained a college education without going to college.

MEETING OF THE CALIFORNIA PHARMACEUTICAL SOCIETY

The California Pharmaceutical Society will meet in San Francisco, Thursday, November 14. The following is the program as far as it can be outlined at present. Minor changes will be announced at the meetings:

The first session will be held in Plymouth Church from 10 to 12 o'clock a. m. The order of business will be: President's address, reading of reports, appointment of committees, election of officers, and miscellaneous business.

The second session will also be held in Plymouth Church, from 1:30 to 4:30 p. m. This session will be devoted to the reading of papers on scientific and trade topics, reports of committees, appointment of new committees, and miscellaneous business.

At 7 o'clock p. m. a dinner will be given at some centrally located hotel, the exact place to be announced at the day's sessions.

Plymouth Church is located on Post Street, near Webster, about one block from Fillmore Street. Those coming across the bay should take the Sutter Street car to Webster Street. Any car will, however, give desirable transfers.

The following, and others, will probably present papers and take part in the deliberations and discussions: Prof. W. M. Searby, Dr. J. H. Dawson, Prof. W. T. Wenzell, Dr. Henry B. Carey, A. S. McDonnell, Dr. Albert Schneider, F. E. Weck, F. W. Nish, Geo. Lichthard, Prof. J. H. Flint, P. M. Byrd, J. A. Sanford, A. Maas, J. M. A. Laue, H. D. Morgan, Dr. Haydn Simons, I. Tobriner, Prof. H. R. Wiley, Val. Schmidt.

All are invited to take part in the deliberations, to present notes of interest, to register kicks, suggest how to improve matters. A rousing, enthusiastic gathering is expected. Do not forget the time and place of meeting. COME.

ELECTRICITY IN PLANT CULTURE

For some time botanists have investigated the influence of electrical currents upon plant growth. The earlier results were unsatisfactory or unconvincing. The more recent conclusions are that electrical discharges through soil and plants stimulate growth to a very marked degree. The resulting crop increments (strawberries, corn, potatoes, beets, etc.) range from 20% to 130%.

One method (Prof. S. Lemstrom of Helsingfors University) of applying electricity is as follows: A wire net is first stretched across the field a little above the surface; the net is then connected with an electrical machine, which charges the net. As the seeds sprout the net must be raised, as it must not touch the plants. Prof. Lemstrom declares that this method can be applied profitably.

American and European investigators have also subjected various seeds to electrical treatment, prior to planting, resulting in a marked increase in germinating power and energy.

Efforts are being made to utilize the electricity of the atmosphere, thus doing away with electric generators. It would appear that the future of Electroculture is assured, though it will be some time before the methods will be extensively applied in the backwoods districts.

THE BUBONIC PLAGUE IN SAN FRANCISCO

No one informed on the subject doubts the existence of this disease in San Francisco. Since May, 1907, some 48 verified cases have been reported, with perhaps 29 deaths.

The bubonic plague is a disease peculiar to the large, crowded, filthy cities of the tropics. It has never occurred in the form of serious or widespread

epidemics in the cities of temperate or sub-tropical countries. San Francisco is far from a tropical city, though at the present time its sanitary conditions are not the best. Basements should be kept free from standing water. Rats, mice, fleas, cats and dogs should be exterminated. Streets should be repaired so as to render them passable in summer as well as in winter. Just now the dust is very bad, and in the rainy season it will be very difficult to navigate certain streets without high rubber boots.

Car barns, the ferry building, school buildings, street cars and other public places should be disinfected thoroughly once or twice a year, plague or no plague. Car straps should be replaced once a year at least. The spitting and smoking ordinances should be more strictly enforced. Now for several years to come, while San Francisco is rebuilding, sanitary rules and regulations should be doubly stringent. Even though the plague will not in all likelihood assume any threatening proportions, we should see that not a single new case will occur. We do not want the plague. We have enough of troubles as it is. It may also be stated that it shows decidedly bad taste on the part of certain newspapers (not printed in San Francisco, of course) to take advantage of the conditions in San Francisco and through gross misrepresentation try to induce people to leave. We recall, shortly after the earthquake, the circulars from Los Angeles inviting all to come to that mecca "where no earthquakes occur." This is bad form. Don't do it again.

To sum up, there is no cause whatever for a panic on account of the plague. The new city Board of Health will see to it that such plague sources as now exist will be eradicated in a short time.

OVATION TO PRESIDENT WHEELER

On Friday, October 4th, between 2,500 and 3,000 graduates, students and friends of the University of California assembled in the Harmon gymnasium at the bid of the faculty, to voice their appreciation of President Benjamin Ide Wheeler's action in declining the tempting offer from the Massachusetts Institute of Technology and remaining at Berkeley. Addresses were made by Professors Bernard Moses, E. W. Hilgard, Thomas Bacon and Regent Britton, and a "diploma" of recognition was formally presented. President Wheeler, in acknowledging the presentation, said:

"As I thought the matter over I decided that I never could leave California. We out here see life. The ordinary provincialism of New England does not appeal to us.

"There is one thing. I do not believe that the people of this State appreciate the future this university has before it. It is located here at the head of the Golden Gate and has not a peer. **This is my job;** I am here; I love California, and I hope to stay here."

Upon the adjournment of this meeting, the Faculty and Regents assembled in the Faculty Club, where a luncheon was served, and further eulogiums were given the president, closing with the presentation by Professor Morse Stephens of a beautiful loving cup. Speeches were made by Professor Irving Stringham, Guy E. Earl of the Board of Regents, Mr. Chas. Green for the Alumni Association and Professor Bacon. The Rev. S. H. Willey, one of the founders of the College of California, out of which grew the University, spoke of its early trials and high ideals. After much handshaking the party dispersed.

Have you subscribed?

WOMEN'S PHARMACEUTICAL ASSOCIATION

The Women's Pharmaceutical Association met at the University of California Medical Hospital, Friday evening, October 4th, President Rose Shapira presiding. Those present were Mrs. Phillip, Misses Nelson, Dolcini, Roehr, Shapira, Merriam and Farrell. The principal business was the election of new officers, as follows: Clarissa Roehr, president; Mrs. Phillip, vice-president; Mabel Dolcini, secretary; Ethel E. Nelson, treasurer.

Misses Merriam and Farrell were received into membership.

The regular monthly meeting will be held Friday evening, October 25th, at the California College of Pharmacy. As many of the members are unable to attend on Saturday evenings, the meeting night has been changed to the fourth Friday of the month.

At the next meeting the regular paper will be presented by Miss Ethel Nelson, '04. Each member is urged to have a few notes on some subject of pharmaceutical interest.

Frank R. M. Fellows, a freshman in the California College of Pharmacy, died suddenly of pneumonia at his temporary residence, Cole Street, on September 20th. He had come from his home, Winnemucca, Nev., for the purpose of attending college, and had just got fairly into his work when he was taken ill, and though everything was done for him that medical skill could do, he sank rapidly. Fortunately the mother was residing here with him, and gave him such attentions as only a mother can give. The funeral took place at Winnemucca, where he was known and greatly esteemed. His classmates sent a flower piece and letter of sympathy to the mother.

GET READY**For a Rousing Meeting of the California
Pharmaceutical Society in November**

In the year 1868, when we were in the town of Cache Creek waiting for a stage to carry us to Sacramento, our attention was attracted to a man who hailed from San Francisco, who held a crowd in the hotel spellbound while he discoursed of the rejuvenating effects of his "New Life" and "Abolition Oil." He made lots of fun out of his business, especially at the dining table, where some almost choked over his sallies and jokes about the "New Life." But at times he got down to serious business, and the way "the boys" shelled out the dollars for "New Life" and the half dollars for "Abolition Oil" was something the writer will never forget. Apparently most of them paid out their money just for fun, but some of the rheumatics were anything but humorous when they invested in the oil that was to abolish their aches and pains.

Now Secretary F. W. Nish is not a faker, but he has been handing out "New Life" to the members of the California Pharmaceutical Society, and wants a chance to give to all weary, careworn, aching druggists at the Annual Meeting of the Society on November 14 the balmy oil that will banish all their soreness, jealousy, suspicion and uncongeniality. He believes that those who take his medicine will put New Life into their business, and have a good time besides. So he wants all the druggists of the State, as far as they can, to come to the meeting and get rejuvenated, and he does not care whether they buy his "New Life" for the fun of the thing or as a serious business, so long as they invest their time and interest in his remedy. The programme is not yet completed, but it

will embrace business and pleasure, trade issues and papers on pharmacy. Let everybody contribute who can. It is more blessed to give than to receive, but you can't do the one without getting the other.

So, Mr. Druggist, make your plans beforehand to have Thursday, November 14, all day free, so that you can contribute by your presence toward making the meeting enthusiastic and profitable. The meetings will be held at a central point, Plymouth Church, on Post Street, near Webster. A modest banquet will probably wind up the affair, and it will not be costly. Good-fellowship will be an important part of the menu. So, one and all, **GET READY.**

**THE SAN FRANCISCO AND BAY
COUNTIES' RETAIL DRUGGISTS
TAKE A DAY OFF**

**Business, Pleasure, Dinner and Dancing,
Music and Minstrels Above the
Clouds**

The druggists of San Francisco and vicinity are growing wise. They are learning that it is worth while to take a day off once in a while, especially if they can at the same time fraternize with their fellow-pharmacists and get better acquainted with them. So on Tuesday, September 24th, about 150 of them (including their lady friends) crossed the Bay, and at Mill Valley took a special train to the top of Tamalpais, and there took in the pure air and glorious scenery of that grand old mountain. After strolling about the walks for an hour or two and testing the seats thoughtfully provided by the management for the especial comfort of **very small** parties, the whole company sat down to a hearty dinner in the Tavern. Having done justice to the viands set before them, Professor Frank T. Green, the President, was

called upon by W. B. Cheatham, Manager of the S. F. & B. C., R. D. A., to act as toastmaster. This he did with so much quickness and dispatch that it was easy to see that he was living up to his own motto: "Keep Busy." He called upon W. M. Searby, President of the American Pharmaceutical Association, to say whether the American Pharmaceutical Association was "as high as we are"? To which the reply was that the A. Ph. A. stood for all that was highest in pharmacy, and that if California wanted to be on top, all her druggists would have to become members of the Association. He spoke also of some of the unfavorable aspects of pharmacy, and of the generally hopeful tone of the Eastern men whom he had met. Toasts were responded to by E. L. Baldwin, K. B. Bowerman and others.

At 4 p. m. many of the party left the Tavern, descending the mountain by the picturesque but tortuous road, arriving in San Francisco soon after 6 p. m. The rest of the company, to the number of 35, then turned themselves loose and had a good time. Miss Myrtle Newman rendered several vocal selections and recitations, also entertained the audience with fancy dancing, costumed for the occasion. Mr. L. S. Crackbon sustained his reputation as one of the champion bone players. Mr. Geo. O'Neill did some fancy dancing, also rendered several vocal selections, Mr. Walter King presiding at the piano. Mr. W. B. Cheatham gave a recitation. Dancing was then indulged in by all present until 6 o'clock, when the party ascended to the summit of the mountain to see the sunset, and to once more be photographed by the rapid-fire photographer. The evening meal was served at 7 o'clock. For an hour and a half jokes, conundrums and other features made it one of the most

enjoyable periods of the entire outing.

At 9:30 the special train departed, leaving six, who remained in order to see the sunrise next morning. They then returned to Mill Valley by the gravity car.

During the day, some business was transacted, and the following officers were elected: President, F. T. Green; first vice-president, J. H. Boyeson; second vice-president, A. L. Lieber of Oakland; treasurer, Edward N. Ayer; secretary, W. B. Cheatham, who is also manager of the local association.

Thus ended an enjoyable outing, which those participating all say must be repeated p. r. n. Much credit is due to the Committee, and especially to W. B. Cheatham, for the completeness of the arrangements.

Among those present were: Prof. Wm. M. Searby, Mrs. A. L. Thom, Prof. Albert Schneider, Prof. F. T. Green and daughter, Mrs. A. A. Halloran, Mr. Val. Schmidt, Mr. and Mrs. Ed. L. Baldwin, Mr. and Mrs. K. B. Bowerman, Miss L. M. Moore, Mr. and Mrs. Ed. N. Ayers, Mr. and Mrs. D. R. Reese, Mr. and Mrs. H. S. Cottle, Mr. and Mrs. Chas. Bayly, Mr. and Mrs. S. M. Dearlman, Dr. C. V. Cross, Mr. and Mrs. J. W. Salter, Jr., Mr. and Mrs. B. E. Weaver, Mr. and Mrs. Geo. Broemmell, Mr. and Mrs. C. F. Fuller, Mrs. S. P. Coons, Mr. and Mrs. J. J. Mahoney, Miss Isabelle Mahoney, Mr. Fred Mahoney and Master Jack Mahoney, Mr. and Mrs. D. H. Wulzen, the Misses Margaret and Eva Wulzen, Mr. and Mrs. J. H. Boyson, Mr. and Mrs. L. S. Crackbon, Mr. and Mrs. E. J. McGivern, Mr. and Mrs. F. E. Rockstrof and daughter, Mr. and Mrs. G. L. Girard, Mr. W. H. Farley and daughter, Mr. and Mrs. J. H. Winter, Miss Madeline and Master Leo Winter, Mr. and Mrs. Chas. Hall, Mr. A. J. Brannagan, Mr. and Mrs. J. J. O'Grady, Mr. and Mrs. J. T. Scow, Mr. and Mrs. T. A. Donlon, Dr. and Mrs. Albert Munch, Mr. and Mrs. Frederick Lovetti, Mr. Geo. Oliva, Mr. and Mrs. A. Zabaldano, Mrs. Dr. Scoseria, Mrs. O. Garassino, Mr. and Mrs. C. O. Fauda, Mr. and Mrs. D. B. Green, Mr. and Mrs. Chas. B. Whilden, Mr. and Mrs. Norton, Mr. and Mrs. M. C. Clarke, Mr. and Mrs. Fred Hildebrandt, Mr. W. Pattiani, Mr. Angel, Mrs. A. Imhouse, Mr. W. J. Adams, Mrs. N. M. Spencer, Mr. B. J. Aschim and niece, Mr. Walter King, Mr. Geo. O'Neill, Mrs. and Miss Myrtle Newman, Mrs. Baldwin, Mr. and Mrs. W. B. Cheatham, Mr. and Mrs. Robert Leet, Mr. and Mrs. Frank Taylor, Mr. A. C. Dibert,

Mr. and Mrs. Philip, Mr. J. H. Howard, Mr. and Mrs. A. L. Leber, Mr. and Mrs. I. Tobriner, Mr. and Mrs. Fred Sandelin, Mr. and Mrs. C. H. Hammit, Mr. and Mrs. Smith, Mr. and Mrs. Wishart, Mr. and Mrs. R. L. Reid, Mr. and Mrs. F. S. Klinkner, Mr. and Mrs. Geo. Baxley, Mr. and Mrs. Mallory.

BELLADONNA CULTURE IN CALIFORNIA

The firm of Johnson and Johnson of New Brunswick, N. J., have leased thirty-two acres of ground in Castro Valley, California, near Haywards, to be devoted to the experimental growing of belladonna. Dr. Albert Schneider has full charge of all the experimental operations.

The selection of land was made after a careful study of soil, soil moisture, atmospheric moisture, rainfall and temperature. It is confidently believed that the experiment will prove a commercial success.

STEALING THUNDER

It is no uncommon thing for some one to give voice to an idea which is not his own, having apparently no hesitation about giving the impression that the matter is wholly original with him. This is plain stealing, a plain case of appropriating glory to which he is not entitled. This is particularly true of **some** scientists, and the **some** is not very small either. We should not deck ourselves with strange feathers; it shows very bad taste and makes us an abomination on the face of the earth. If a man hands out a good thing to the public, we should not sneak up behind him, grasp the article before any one else has had an opportunity to see it, and hold it up for public gaze as **our** product, nor should we seek to minimize or vilify the work of others; it is not right. Let us not steal thunder, but give credit where credit is due.

An effusion like the above at once prompts the question, I wonder who has been stepping on his corns? but it does not necessarily follow.

EXPENSES OF THE A. PH. A. MEETING IN NEW YORK

After paying all bills incident to the entertainment features of the recent meeting of the American Pharmaceutical Association, the local committee have about \$1,200 left. It has been suggested by some of the contributors that this balance be given to the Endowment Fund of the Association, and the idea seems likely to be adopted. So mote it be!

A Queer Instrument

"A freshly sharpened lead pencil is a good instrument for removing foreign bodies from the eye. It is clean and aseptic."—Southern Clinic.

It is best to consider the above advice as a species of joke. A physician would certainly not use the new instrument. In the hands of the novice it would no doubt serve to put out an eye very effectually. The consensus of opinion is also that lead pencils are not especially noted for cleanliness. Do not attempt to use this wonderful ophthalmic instrument.

In the hope that a change of climate would bring him improved health, Ivory Rodda, a Senior in the California College of Pharmacy, has moved to Sacramento, where his parents reside. He hopes to return to College next year, where he made a fine record as a Junior.

B. F. Catlett, pharmacist of Sacramento, has been nominated for City Trustee from his ward.

DRUG CULTURE IN CALIFORNIA

Numerous inquiries have been received from time to time regarding drug plant culture in California. A serial in the **Pacific Pharmacist**, begun with the first issue (May, 1907), is intended to answer these inquiries. The following statements will serve to make clear some of the things referred to by correspondents, and which may also be answered in a general way.

Drug plant culture must not be looked upon as means of acquiring great wealth easily and expeditiously. Do not look for a "get rich quick" proposition in the cultivation of any medicinal plant, including ginseng, golden seal, rhubarb and unknown weeds.

Please do not send a bit of some weed with a request to "tell all about it." Send, if possible, the entire plant, flower and fruit, including a note telling all that **you** know about it; where it grows, the nature of soil and environment in which it is found, local and other common names, uses made of it, or uses reported to you, etc.

No, it is not advised to collect spontaneously growing medicinal weeds for the drug market. You will in all probability be disappointed in the net results.

Yes, ginseng and golden seal could no doubt be grown profitably in suitable localities with adequate capital and labor, and provided the work is superintended by some one who knows how to prepare these drugs for the market and knows how to find the market.

As a rule unknown weeds have no market value. Some weeds, of no general medicinal value, **may have a local use**, but the chances are that there is no market for them.

A drug plant culture venture im-

plies a certain amount of preliminary experimenting and waiting for results. To illustrate, belladonna has been grown experimentally in the United States for five years, on the Atlantic coast and on the Pacific Coast, and the experiment is to be continued for several years more before a decision is reached as to whether or not this drug plant can be grown profitably and successfully. In other words, make haste very cautiously and slowly. Don't rush at it blindly.

STOCK BACTERINS OR BACTERIAL VACCINES

Some of the bacterins, based on the opsonic theory, are now on the market. The following bacterins are ready, and others will be offered for sale as soon as they give promise of good results: Staphylöbacterin, streptobacterin, Neisserbacterin, and pneumobacterin. These bacterins are put up in hermetically sealed tubes of 1 cc. capacity, the preservative being sterilized normal salt solution. Each tube contains one dose. Their keeping power has not been accurately determined as yet. The bacterins consist of the several species of microbes killed by a special process, suspended in the normal salt solution. It is to be hoped that their use will prove satisfactory.

PROLONGING LIFE

Several well-known investigators have succeeded in extending or prolonging the vital impulse of certain low organism. To illustrate: Normally *Paramecium caudatum* dies out in about 175 generations. By applying certain stimulants, as alcohol (1-5000 to 1-10000), the existence of the paramecia could be prolonged to 860 generations. Very dilute doses of strychnin gave similar results. Not only

was there an increased prolongation of the vital impulse, but also a marked increase in activity and in cell division. If it is possible to prolong the vital impulse of such organisms as the paramecia, it is highly probable that we may find a means of similarly prolonging the vital impulses of the cells composing the human body, perhaps prolonging the life period of the individual by some fifty or more years. Numerous investigators have from time to time concerned themselves about the senile changes in the cells of the human body and have sought for substances which might inhibit these changes, but thus far without any conclusive results. We recall Brown-Sequard's "Elixir of Life" and other life elixirs. Brown-Sequard was a prominent physiologist who made extensive experiments along this line, but was so unfortunate as to let the daily press get hold of his ideas, with the result that he and his work were entirely misrepresented. However, work along this line, based upon scientific principles, is being carried on, and no doubt some day satisfactory results will be obtained.

NEW OPIUM

Two years ago it was suggested in the **Pacific Druggist** that it would no doubt be possible to obtain good opium from poppy plants, by expressing the juice from the entire plant (excepting the roots) and evaporating it to the desirable consistency. This has been done experimentally in the laboratories of the California College of Pharmacy. The inspissated juice, from well-matured plants, gave from four to six per cent of alkaloids. It would appear that the alkaloidal yield from the juice of plants gathered at the most suitable period, shortly before the maturation

of the capsules, would be even higher.

It would certainly be desirable to procure opium in the manner indicated. This would enable us to grow the poppy for opium production profitably, and would do away with the use of the filthy Oriental product. It would, of course, be necessary to modify the alkaloidal standard, fixing it at perhaps five per cent. The Oriental opium with its present alkaloidal standard could still be admitted in competition with the new opium with its lower alkaloidal standard.

The experiments will be continued. The Department of Agriculture is carrying on a similar experiment on a larger scale, which will, no doubt, be reported upon soon. The poppy grows almost anywhere. It thrives exceedingly well in California. Good quality opium (Oriental method) has been secured from the California-grown poppy by J. H. Flint of San Francisco, and by others.

SUGAR FROM BEETS AND FROM SUGAR CANE

Chemically these sugars are identical and are known as cane sugar. Some individuals claim to be able to detect the physical differences between these sugars, while others admit that they cannot do so. The sweetening power is equal. For the preservation of fruit, etc., the sugar from sugar cane is preferred, it being claimed that it does not begin to undergo fermentation nearly as readily as does the beet sugar. According to some experiments by Dr. A. Wilhelmj, recently of the Spreckels sugar company, there is no appreciable difference in this regard.

Through special culture methods, selection, etc., the percentage of sugar in beets has been gradually increased from about 3% to approximately 20%.

THE PACIFIC COAST PHARMACEUTICAL ASSOCIATION

The idea to establish a Pacific Coast Pharmaceutical Association (P. C. P. A.) was conceived early in 1905, and received more deliberate preliminary consideration at the Lewis and Clark Pharmaceutical Congress at Portland in July of that year. The first meeting will be held in 1908, at which time the permanent organization will be effected.

The original plan was to include the Pacific Coast and Rocky Mountain States and the insular possessions. The purpose and aim of the organization is to establish and unify the interests of the pharmacists in the areas named, and to create an interest in progressive pharmacy in the West. The organization is in no wise to interfere with the work, purposes and aims of the American Pharmaceutical Association, or with the several State pharmaceutical societies. Rather, the prime object in establishing the Western association is to so unify the interests of the Western pharmacists that there may be a full co-operation with the national body. This cannot be done at present. The Rocky Mountain system establishes a natural barrier between East and West, and the mountainous or insular nature of the areas to be included in the organization makes it difficult to establish a stable local communication between pharmacists, which, again, makes it practically impossible to effect any local organization which is reasonably permanent and which has any marked useful significance.

The Western pharmacists are too remote to derive any considerable benefit from the meetings of the national body, nor can they, as a rule, take part in their deliberations. To make the trip from San Francisco, Portland, Seattle or Los Angeles to the points in the

East where the meetings of the National Organization are usually held, is quite an undertaking and quite an expense. Even when the Western pharmacist does arrive at the place of meeting, he feels lost and an absolute stranger. These and other conditions have suggested the desirability of organizing the Pacific Coast and Rocky Mountain pharmacists.

It is hoped that the above statements will serve to make clear, in a measure, the principal purposes of the proposed organization. It does not mean secession from the A. Ph. A. The sessions and deliberations of the P. C. P. A. will not interfere with the sessions of the A. Ph. A. It is highly probable that the annual sessions of the P. C. P. A. will be held just prior to those of the A. Ph. A., and that delegates will be appointed to represent the interests and deliberations of the Western pharmacists at the session of the national body. These delegates will then not feel strangers, and will have something of interest to present and discuss. The full deliberations of the Western organization will in all probability be printed from time to time in some official publication. However, the details of the final organization cannot be set forth at the present time.

Coal was first used about 580 A. D., according to the records of the Abbey of Peterborough. It was called "fossil fuel."

Platinum is now said to be worth half as much as gold. This metal to the value of \$2,173,263 was imported into the United States during 1905.

The Germans consume 208.5 pounds of meat a head in a year; the English, 118.4 pounds per head.

PHARMACEUTICAL EDUCATION

By Albert Schneider.

We believe in a free press and in free speech. This has prompted us to publish the article by Dr. O. A. Wall, in which this well-known writer on topics pharmaceutical seeks to dash cold water on the higher pharmaceutical education enthusiasts. The article has a tendency to create a certain feeling of confidence because of the liberal quotations from eminent educators. While the quotations are authentic, they are highly misleading, because they are entirely misapplied. Furthermore, the authorities quoted are not informed on subjects pertaining to pharmacy, and did not refer to that profession or calling when making the quoted statements. It is also a well-known fact that we can find quotations, apt or otherwise, in support of any argument, just as we can collect statistics to prove anything. An unusually honest statistician has said: "There are three kinds of lies, just plain lies, d—n lies and statistics."

We will not discuss *in extenso* the real and imaginary shortcomings and defects of our educational system. No doubt every individual living could write a volume, large or small, pointing out these defects and suggesting remedies. Most of us would, perhaps, agree that our graded schools fall a little short, our high schools are a little impractical, and our universities a little "uppish." Because of these defects, shall we therefore condemn the entire system? Any wholesale condemnation shows the pessimist, and following this trend it could be argued that the world is growing more and more wicked instead of better. We, the optimists, believe that the present age is better than the past, better than barbarism and

savagery. We have a sneaking suspicion that we are even in advance of the "age of chivalry." There are, it is true, some sentimental women and some so-called anthropologists who weep salty tears or perhaps rave a little over the disappearance of the pristine, untrammelled, pure, unpolluted, wholesome freshness and nobility of the savage. But it can safely be wagered that the majority of us prefer civilization with all of its defects. Our educational system, with all its defects, is accomplishing good results.

We have from time to time argued in favor of higher and better pharmaceutical education. In fact, we have gone into the subject *ad nauseam*, and the only reason for this effusion is the paper by Dr. Wall. It shows that we have not succeeded in convincing all. We shall everlastingly keep at it until all are convinced, or as long as we have the power of speech or the power to wield a pen.

Some years ago the writer expressed himself in favor of high school graduation as a prerequisite to entering a college of pharmacy, and a three years' college course as a requisite for graduation, having in mind high schools and colleges of first rank. It was stated that such requirements could not be enforced at the present time. We most emphatically declare ourselves in favor of raising the pharmaceutical educational status as rapidly as possible. We are opposed to a reduction in educational requirements. One year in high school should certainly be a minimum entrance requisite to a reputable college of pharmacy, and yet the chances are that even this minimum require-

ment will fail, for some time to come, to receive the support of the majority of colleges represented by the Conference of Pharmaceutical Faculties. " 'Tis pity, 'tis so, and pity 'tis, 'tis so." We do not presume, at this time, to discuss the defects or shortcomings of the curriculum of studies of high schools and of colleges of pharmacy; these are minor details which are of very little moment as compared with the desirability of a general advance in pharmaceutical education, which would result through the adoption of higher requirements. Again, it is desired to call attention to the fact that State Board examinations should be made subordinate to the pharmaceutical attainment instead of controlling it, as it practically does at the present time. No one should be allowed to appear for examination before a State Board of pharmacy without a diploma from a reputable college of pharmacy. Until such legislation is adopted by the States, the calling of pharmacy will remain below par. State Boards are not in a position to pass on the primary fitness of candidates to practice pharmacy. The best and most they can do is to recheck the decision of the faculties of the reputable colleges of pharmacy.

As to "correspondence schools of pharmacy," a threatening explosion of emotions does not permit us even to express an opinion. Merely this, while correspondence schools may aid in developing, they do no fit for anything. They should not be mentioned in the same category with the pharmaceutical training of reputable colleges of pharmacy. Perhaps more later.

There are a lot of people in this world who cannot tell if a thing is beautiful until they know the price of it.—Printers' Ink.

POISONS GIVEN TO MINORS

A few weeks ago the papers of St. Louis chronicled the death of an eleven-year-old girl, due to carbolic acid. It appears that the pharmacist sold the drug to the child without the knowledge or consent of her parents or guardians.

There is a city ordinance in St. Louis which forbids such practice, the penalty for which is a fine of not less than \$50.00 nor more than \$300.00 for each and every such offense. Sec. 512, Municipal Code of St. Louis, adopted in 1901, reads in part as follows: "To sell to any person any drug, medicine, chemical or any other article which may prove fatal or injurious, if taken internally or used externally, by mistake, without the same shall be plainly labeled with the name of the article and the word 'poison,' and, in addition to the word 'poison' such label shall contain a skull and cross-bones, so as to indicate to any person handling such article that it is poisonous, and in no case shall any poisonous or injurious drug, medicine, chemical or other article be sold to a minor or irresponsible person, unless the same have the permission, in writing, of the parent or guardian of said minor or irresponsible person."

It is a hopeful sign of the times to see so many large cities with such protective ordinances. It is needless to say that it behooves all pharmacists to be strictly aware of all ordinances or laws affecting the profession. "Ignorance of the law excuses no man."

A man will buy a mining stock on the strength of a prospectus, but you would not catch him buying a horse upon the same terms. Yet we have seen nothing to warrant the belief that mining share promoters are more conscientious than horse dealers.—Exchange.

Ten Rules That Lead to Success for an Employee

1. Take as much interest in your employer's business as if it were your own.

2. Do not expect to get all you can and give nothing. Do a little more work than is demanded.

3. Be prompt. Show that you have an interest in your work above a desire for an extra half-hour in bed in the morning. You can't come down a half-hour late every morning and impress your employer with the idea that you are a wide-awake, active man or woman with an interest in your work.

4. Do your work well today; you won't have to do any of it over again tomorrow.

5. Be cheerful and willing. A sullen countenance is not pleasant to look upon by either an employer or a customer. Remember your pulling power with a customer is one of your assets. The reverse will be your loss. Be courteous. Do not thrust your own troubles and inharmony upon those around you. It is a poor investment.

6. Be conscientious. Don't take too much interest in ball games, theaters, parties, etc., or you may find that you have not much time left to give to your work. Don't have a relative die too often. Funerals sometimes grow monotonous to an employer during the baseball season or on matinee afternoons.

7. Do not make the same mistake twice.

8. Do not let your thoughts be always wool-gathering if you expect to earn an increase of salary on pay day.

9. Do not shirk your work and be always thinking of the money side of the proposition. Give good value for the money you receive and you will be sure to succeed.

10. Put yourself in your employer's place and figure out what kind of an employee you would hire to get the most out of your business. Then set yourself to try to be that employee.

There is no short, easy road to success, but it is well worth traveling.—
Printers' Ink.

The Red Cross Symbol

Pharmacists no longer have the right to make use of this symbol. For years this symbol was used in a reckless manner for advertising purposes. The corporation, the American National Red Cross, has the exclusive right to this sign and name. Section 4 of the charter may be of interest:

"That from and after the passage of this act it shall be unlawful for any person within the jurisdiction of the United States to falsely and fraudulently hold himself out as, or represent or pretend himself to be, a member of, or an agent for, the American National Red Cross, for the purpose of soliciting, collecting, or receiving money or material; or for any person to wear or display the sign of the Red Cross, or any insignia colored in imitation thereof for the fraudulent purpose of inducing the belief that he is a member of, or an agent for, the American National Red Cross. Nor shall it be lawful for any person or corporation, other than the Red Cross of America, not now lawfully entitled to use the sign of the Red Cross, hereafter to use such sign or any insignia colored in imitation thereof for the purposes of trade or as an advertisement to induce the sale of any article whatsoever. If any person violates the provisions of this section, he shall be guilty of a misdemeanor and shall be liable to a fine of not less than one nor more than five hundred dollars, or imprisonment for a term not exceeding one year, or both, for each and every offense. The fine so collected shall be paid to the American National Red Cross."

Coalite

This is said to be a new fuel, made from coal by subjecting the latter to partial distillation. It is claimed that the new fuel makes no smoke and develops something like twice the heat of coal, and the fire lasts 40 per cent longer. It is an English product.

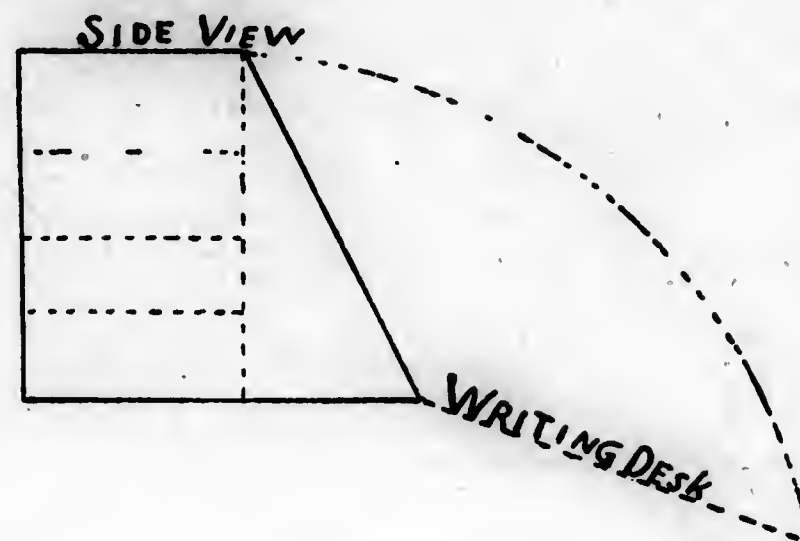
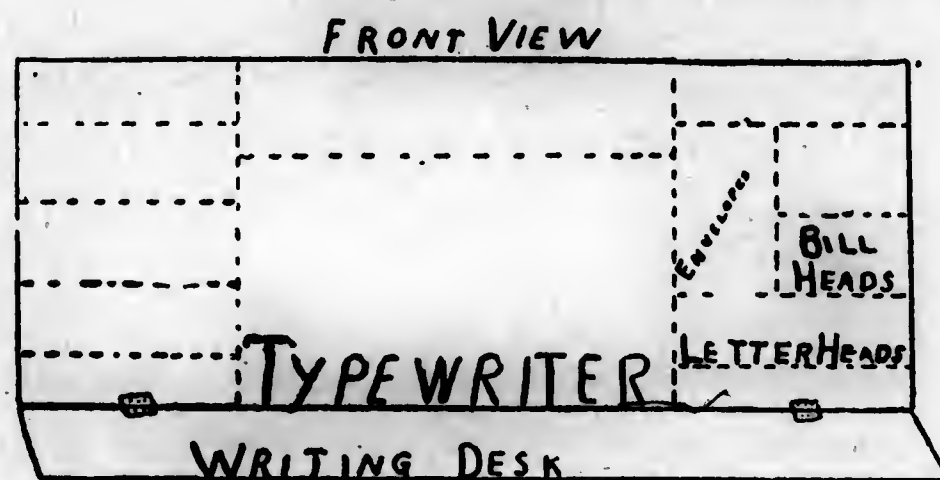
USE YOUR SPACE

By H. D. Morgan.

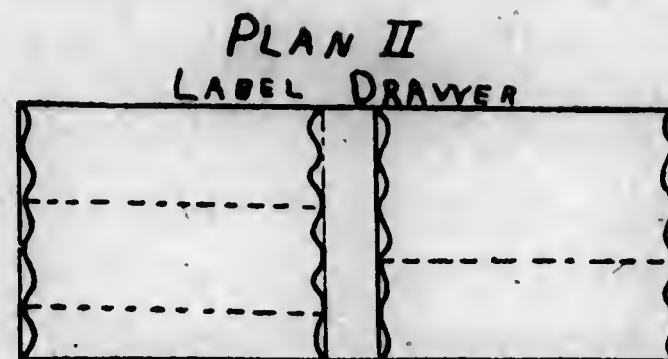
"Good morning, doctor, how are you this morning? Glad to hear you are well. What am I doing? Working, doctor, working. This morning I am trying to use up some of the waste space for which we pay \$125 per month. If you're interested I'll show.

"In here I'm making room for my desk, my typewriting machine, books, etc. You know, doctor, you can't take too good care of your books, correspondence, writing material. I have know a man's credit affected by cheap and shoddy letter heads. I tore up a large drygoods box and built in this space some shelving, leaving a space in the center to build a cabinet to keep the machine and writing material. These better boards I shall use to make a hinge cover to keep out the dust and to be a writing desk when open. Here is the plan I am using. (See plan No. 1.)

PLAN I
HOME-MADE DESK AND TYPE WRITER HOLDER



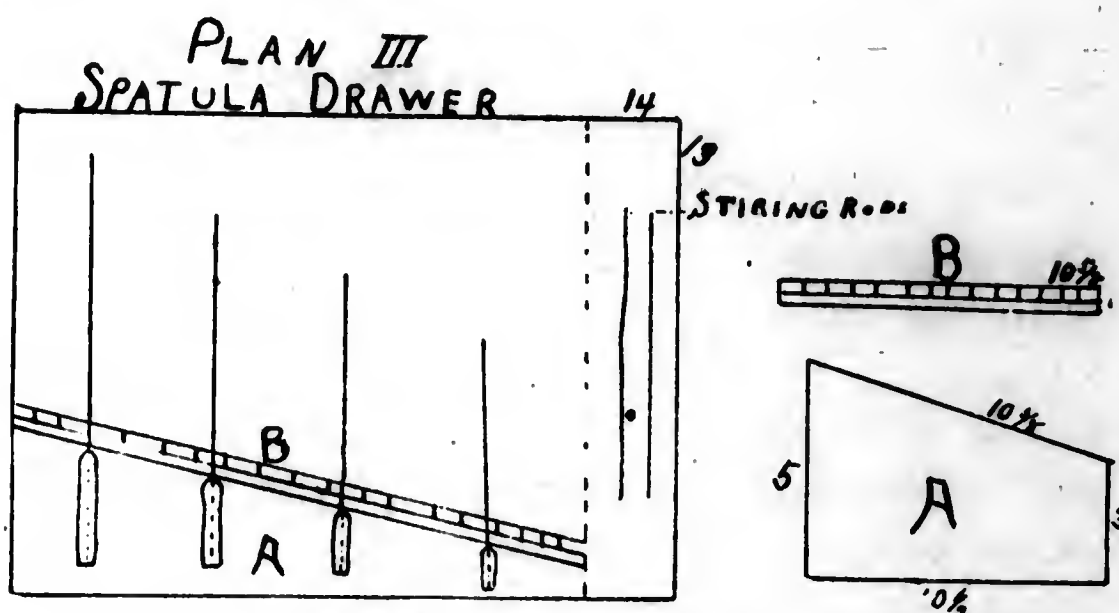
"Did I ever show you how I made our label drawer? Step in here to the desk I have over the safe. You see, I keep the safe out here in front so that it may be seen from the outside—this has been known to save the contents, as the night-watch once spotted a 'jimmy' at work. This drawer is one I had made to use up the space between the safe and the top of the desk. It measures $2\frac{1}{2}$ inches deep, 22 inches wide by 12 inches long. I nailed a small strip to act as a partition in the middle from front to back. Cut strips of corrugated paper, such as comes around goods, and glued these strips to the sides. Thin strips of wood, such as come between bottles, I cut with heavy shears and fitted in from right to left in the grooves of the paper. I put them close enough so as to form little stalls for the label. I put a rubber band around each bundle of labels



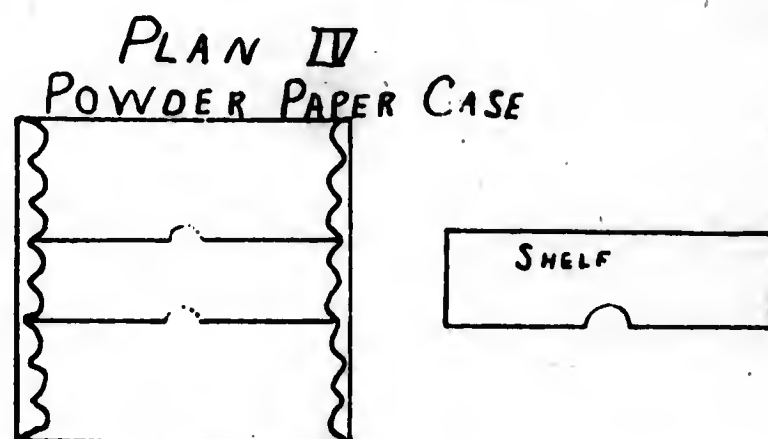
to keep them separated. (See plan No. 2.) Doctor, I want you to see our spatula drawer. I don't know that you ever tried to herd a band of wild and unruly spatulas with an ugly bunch of glass stirrers, pill tiles, etc. It isn't hard to get them mixed, but it is a job to keep from getting the one with the saw-edge or the one with the bob-tailed nose when you really want the little nickel-plated fellow. Much religion, doctor, is lost by 'we'uns of the pilltile' hunting for things that can't be found. In utter despair I began to figure a way that wouldn't take a bookkeeper to tell me where spatula No. 1 or No. 4 was hiding. Here's the result: this shallow drawer under the Rx

case, $2\frac{1}{2}$ inches deep by 14 inches long and 13 inches wide. I cut a thin piece of drygoods case $\frac{1}{2}$ -inch thick, $10\frac{1}{2}$ inches long, tapering from 5 inches to $3\frac{1}{2}$; this I nailed on the bottom near the left-hand corner to the front, A. Another of the same thickness, $10\frac{5}{8}$ inches long and 1 inch wide. Nails were driven from front to back every inch, so that when the slits were sawed for the spatula these 'betweens' would not break (B). The slits were then sawed between the nails about $\frac{1}{2}$ inch deep. This was finished with sandpaper. This nailed on the slanting edge of A made the spatula rack. A slat $\frac{1}{2}$ inch wide, 1 inch high by 13 inches long was nailed to the right-hand end of A and B, from front to back, upright, forming a place for the stirrers, etc. The mission of the piece A is to form a resting place for the handles of the spatulas, thus keeping the blades from

poking up. The holder is placed slanting so that the different lengths of handles will not permit the spatula to slide all over the drawer. Your spatulas are all on edge, and you can now pick the winner every time, without using a stirrer to do so. (See plan No. 3.)



"While we are here I'll show you how we keep our powder papers. This space was too small for anything else, so I glued strips of corrugated paper to the sides, sawed pieces of cigar boxes to fit, as in the case of the label drawer, except that it is horizontal. Cutting thumb holes makes it easier to get at. The papers were put on these. (See plan No. 4.)



"Do you know, doctor, I found the keeping of corn plasters in the original dozen boxes difficult to prevent crusting, so I took vaseline boxes and divided them transversely with shelves. By setting these on end they make good holders, and can be set on any shelf. The same plan may be used for regular plasters, only that larger boxes must be used. Even for memorandum books and the like it works well, where there is not enough space for shelves.

"A similar box may be made with a few more shelves to hold small bags. A strip nailed at the end of the shelf at the proper distance will keep the bags from slipping too far, or the shelves can be shoved to the rear of the box and the front cut on a slant giving the right depth.

"Have to go, doctor? All right. Sure, come again. I'll show you how we use the space we'd lose if it were not for our hammer, saw and a few nails."

DEBITS AND CREDITS

There are few druggist who are not obliged to extend more or less credit, and the methods of entering charges vary from the primitive memoranda-slip on file to the electrically operated duplicate-entry individual sale-slip cash-register charge, combined with the loose-leaf ledger or card-index systems.

My purpose is to outline a system which is practical, economical and readily adapted to the needs of most pharmacists.

The method most in vogue is the day-book or journal entry, which is posted to the ledger; from the ledger the monthly statement is rendered.

This procedure involves much time and labor. Too frequently the pressure of business delays the routine posting, and the druggist spends his "off" hours trying to catch up. Inability to furnish statements of account promptly on demand is a serious obstacle to the orderly conduct of business.

Another fertile source of loss is the dead matter encumbering ledger and index. "Dead horses" are constantly bobbing up and getting on one's nerves, and closed accounts that may be forever closed are passed under the thumb, taking up as much of the searcher's time as the live ones.

These highly objectionable features of the old system have created the demand for the loose-leaf ledger and card-indexes.

In the loose-leaf ledger, the dead accounts are transferred to a separate binder, and both the current ledger and the transfer are equipped with adjustable indexes, greatly facilitating reference and economizing space. The more expensive loose-leaf ledgers have lock binders, preventing possible tampering with the pages.

The card-index, while embracing the salient features of the loose-leaf ledger, combines those of versatility and inexpensiveness.

In its simplest form it is a box eight inches wide, five and a half inches deep, and ten or twelve inches long. One-eighth-inch board is sufficiently heavy for the purpose. It should be divided into two compartments, one for the live, and one for the dead accounts. A hinged cover may be added if desired.

The cards are heavy 5x8-inch ledger paper, and come in various rulings.

The regulation ledger ruling as carried by the stationers, cost about \$5 per thousand cards.

The indexes complete the outfit. They are known as 5x8-inch sub-guides, a set of twenty-five alphabetic cards costing 45 cents. Two sets are required.

For the small dealer, this equipment answers the purpose of both day-book and ledger, and does away to an appreciable extent with the monthly statement. The cabinet is placed within convenient reach, and the item to be charged or credited is placed directly upon the ledger card, the credit appearing, preferably, in red ink. When the card is filled upon both sides, the account is carried forward to another card.

It not infrequently happens that a patron calls for a settlement of the account before the statement is duly rendered. He is handed the ledger card, makes the payment, is credited, and, if the account be closed, is at once transferred to the closed account section. How much better is this than wading through the day-book or a bunch of memordanda, and bringing forth the bulky ledger, where the accounts of other customers are exposed.

To inaugurate the system, carry forward the totals of all running accounts from the ledger to the cards. This is preferably done on the first of the month, when statements should be rendered of all accounts.

Merchandise and expense accounts may likewise be transferred to the cards.

The bookkeeping of the larger establishments is greatly facilitated by such auxiliaries as the cash register, the autographic register and the salesman's book-slip.

FRED. I. LACKENBACH.

Ginseng Profitable

A thorough investigation by the California State Board of Trade demonstrates the fact that the growing of ginseng may be made as profitable an industry in California as it is in many Eastern States. The plant grows wild in the Atlantic and Mississippi valleys, but is not indigenous to California. Upon inquiry the State Board of Trade learned that experiments with the plant had already been made, and that all the requisites of soil, moisture and climate are to be found in this State. One tract of nearly 100 acres in Santa Clara County was planted in ginseng two years ago, and gives promise of good returns next year when the first crop is to be gathered. Another smaller tract, a few square rods near Mill Valley, was planted a little later than the one in Santa Clara, and promises equally well. According to information furnished by the Department of Agriculture at Washington, D. C., there are many localities in California adapted to its profitable cultivation.

Ginseng is a drug used as a basis for almost all Chinese remedies. It sells in the market in its natural state at \$8.50 a pound or higher, while fluid extract commands a higher price. The Chinese buy all that is to be had and ship it to China.

Under the new North Dakota law, perfumes are classed as drugs. It will doubtless be a shock to some of the good people to know how much alcohol they buy in this class of preparations.

HINTS ON THE COMPOUNDING OF GLYCERIN, BENZOIN AND ROSE WATER*

By Franklin M. Apple, Ph. G.

Having had considerable difficulty in dispensing this combination extemporaneously, and observing that the mixtures dispensed by my fellow-pharmacists were equally unsatisfactory and unsightly, an endeavor was made to learn the cause of the difficulty, also to devise a satisfactory formula.

After repeated experimentation I have concluded to advise that the extemporaneous compounding of this mixture be discontinued, for it is an impossibility to dispense it in a satisfactory condition by simply mixing the ingredients.

As the cost of the mixture is very small, it should be prepared as a regular stock preparation, in anticipation of a demand for it; then it can be dispensed in a condition that will reflect credit upon, and inspire admiration for the proprietor selling it.

The most satisfactory result of many methods of manipulation is exemplified by the product exhibited for your inspection, which was prepared according to the following formula:

Rx.

Tr. Benzoin 3 dr.

Glycerin 8 oz.

Aq. Rosæ, q. s. ad. ft. 1 pint

Add the tr. benzoin, in repeated portions, to 4 fluid ounces of the glycerin, agitating thoroughly after each addition. Allow to stand for an hour, then add in small amounts, with thorough agitation, a sufficient quantity of rose water to make 8 fluid ounces.

Immediately strain the mixture through a very fine meshed straining cloth, rubbing the same through the strainer with a glass rod or bone

spatula. Repeat this operation three or four times, thereby breaking up completely the curds of the precipitated resin of the benzoin and enveloping them with a watery menstruum, thereby preventing the agglutination of the finely divided curds.

After allowing the mixture to stand for several hours, the remaining glycerin and rose water are added in the order named, with thorough agitation, when a fine, creamy product results. At first the curds formed will float upon the surface of the liquid, but, gradually, they will all descend to the bottom of the mixture.

This latter behavior is one of the reasons for advocating the anticipation of a demand, by previous preparation of the mixture, as it is far better to always dispense a uniform product, if possible, for by so doing, greater confidence is engendered for your abilities as an accurate dispenser.

The product exhibited was prepared almost a year ago, and it was plainly to be seen that it is a preparation that none need feel ashamed to dispense.

We ask the attention of our readers to the advertisement appearing on page 325 in this issue, of Mr. F. C. Felter, Pacific Coast Representative for the Pictorial Printing Co., of Aurora, Ill., manufacturers of druggists' boxes, labels and general printing.

Mr. Felter is well known to the trade of the Coast, having covered the territory for the past five years. To those of our readers who are not acquainted with Mr. Felter, we ask for himself and his firm their favorable consideration when about to place an order for his class of goods. Orders by mail will receive his prompt attention and will be greatly appreciated. His permanent address is 228 Lumber Exchange Building, Portland, Oregon.

Quebec furnishes 85% of the world's production of asbestos. In 1906 Canada exported 59,864 tons.

*Read at the Meeting of the American Pharmaceutical Association, Sept. 4, 1907.

THE EYES AND HANDS IN DISPENSING—TECHNIQUE

Read before the section on Practical Pharmacy and Dispensing, American Pharmaceutical Association, Sept. 3, 1907; by Henry P. Hynson, Baltimore.

The science and art of pharmacy, we are told, must be known, consequently, both the science and art of pharmacy must be taught, but who will tell us which is the "science" and which is the "art"?

While, probably, not altogether consistent with the truth, we may, for the purpose of convenience, call the work of the brain the science and the work of the hands the art and so it may be said that sense is science and act is art; we must **know how** to dispense and we must **be able** to dispense.

To be able to dispense, our hands must do quickly and well what they are told to do, yet, they can not at once do this; they must learn to do it by trial, by repeated, oft repeated practice, guided and helped, at first, by the eyes. Good, willing hands, hands that do not tire of trying, will soon be able to do without the eye, when hands, only, are used. If they are required to use implements which can not be made to see, then the assistance of the eye must be had and since implements are constantly needed, the eye and hand should be taught to act together and for each other.

It should not be thought that there is any inherent relationship between knowing how to dispense and being able to dispense. The same application that leads a person to learn how, may also lead him to become able and this, indeed, would be the natural tendency of a good mind, yet, it is just such a consistently inclined character who often finds that it is only by great effort and through the consumption of much time that he may become even a fairly proficient dispenser and it is such ambitious characters that we should encourage and help.

Than to cite cases, it will probably be more effective to invite the evidence held in every one's mind of the many instances of those who knew well, perfectly well, **how** acts should be done and knew and appreciated the results of well doing, who were totally unable to produce the desired effect, simply because they lacked practice. It must be acknowledged that such persons are in a sad situation, if their very success and comfort depends upon the doing of that which they are unable to do, or who, if they are, after a while, able to accomplish



PROFESSOR H. P. HYNSON, Phar. D.
Maryland College of Pharmacy •

the act, have consumed much more time and much more energy than those who are, perhaps, their actual competitors. Most unfortunate are those would-be dispensers who do not know how much they are directly losing in time, in money, because their hands and eyes have not been properly trained, nor how much they are indirectly losing because of the tried patience of their customers and the unfortunate reputation they are making; nor of the condemnation they are inviting, because of the suffering and, mayhaps, death following the delay and damage of improper technique. Let it be understood clearly and with positiveness, that there can be no approach to perfect art of any kind, where practiced technique is lacking

First think, think hard and, with advice, wisely, and through thinking, learn what to do and then teach the hands to do it, to dispense. How? How does the boy learn to accurately throw a ball; how have our high-priced baseball pitchers learned to control a ball so well; how do we learn to handle the billiard cue; how does the pianist become able, at almost lightning speed, to accurately and delicately manipulate the keys, with eyes otherwise engaged,

as does the violinist, using fingers in one place and arm in another, with both measuring distances with extreme accuracy, practically in the dark? Is it not by practice, patient, tireless practice? Are not all such accomplishments attained through practice? It is the veriest folly then, for any one to suppose he may become even fairly proficient in the art of dispensing, without a great amount of practice; practice which should be secured when failure would not mean serious loss to either novice, employer or client. Practice through regular course of trade comes so slowly and uncertainly and is fraught with so much danger to all concerned, that schooling practice of the eyes and hands should be insisted upon by every one connected with pharmacy, because it is without danger and is less expensive.

It should not be denied, neither can it be denied, that any kind and all kinds of practices with the hands make every new effort easier because of the control won by practice in other directions. This is very encouraging. The discovery of a remarkably good manipulator in a recent class, in the person of a student who had had no store experience at all and whose general movements were such as to forbid the thought of his having any such ability, forced the question, "Have you ever made special use of your hands?" "In no other way than in playing the violin a good deal," was the answer. He was intelligent and knew what to do, and because he had, previously, learned to use his fingers and hands, he quickly became a better manipulator in the laboratory than many of equal intelligence, who had had four or five years' employment in drug stores.

The best training of the hands is to be had in the very earliest days of one's life and it is not unlikely that manual dexterity so often, because of environment, attributed to heredity, is directly due to the early training induced and made possible by environment. When one can not remember a point nearer his nativity than a time when he was using tools and making toys, miniature things, it would be strange if he had not been called a "natural mechanic."

The pharmacist or the student of pharmacy is fortunate then, if in his early boyhood he learned to knit, to sew, to use tools, to play musical instruments, even if the use of the latter taught him no more than to "blow", for it is no small accomplishment for one to be able to "blow his

own trumpet" artfully, just as he must use his hands.

It may be supposed that the pharmacist has learned to **keep** his hands. Itself an art, which, if known to many, is not well practiced by them, however polite and desirable the practice may be. It is, indeed, fundamental and if it has not been learned earlier, this art of keeping the hands, it must be learned in the very first days of college life and it must not be forgotten that the nails are a part of the hands and may become the most conspicuous parts of the dispenser's hands.

However much of eye alertness we may accredit to inheritance, it may be increased and rendered more serviceable by exercise and practice, careful and intelligent training of the eyes is next in importance to the training of the hands of the dispensers; in fact, well trained eyes are the very best assistants one's hands can have.

It will be impossible for a person to become a finished dispenser until his eyes have learned to quickly and surely differentiate colors; measure distances, bulk and capacity; apprehend differences, make comparisons, appreciate form and discover irregularities. The dispenser must really see when he looks and then must understand when he sees. There are, for instance, so many acting dispensers who can not decide whether a liquid holds suspended material or not; it is difficult for them to see comparatively large particles of floating matter in them; they are unable to discover irregularities in the sizes of pills, nor can they tell whether a pill is clean and white or dirty. Powders unevenly folded like "coons," all look alike to them.

The would-be dispenser, in his early school days or perchance later, may have trained his hands to write in clear, distinct, uniform style. It is hoped he has done so and that his eyes have been so trained in the principles of esthetics that he will know how to properly place this writing, but if he has not done so, this must be his next effort and he must practice until he succeeds and understands. Labels must be written, prescriptions must be copied. All must be plainly written, must be attractively written. If our dispenser did not learn to write when it was easiest for him to do so, he must pay the penalty for the neglect and learn now, when it is much more difficult. If he is so fixed in the habit of making bad letters that the

habit can not be corrected, then let him begin to make new letters, another style, vertical or backhand, but by all means let these new ones be made properly and uniform. He surely can make a straight vertical line one-eighth of an inch long, let him make thousands and tens of thousands of these of equal distance from each other. Then let him make many thousand more three-sixteenths of an inch long, gradually increasing one-sixteenth for each lot until he can make perfectly straight vertical lines, one inch long and exactly parallel with each other. When he has made as many "o's" and as many "stems" of as many different sizes and quite as uniform, he may be assured he has learned to write.

In label writing, centering and spacing are very important and a proper appreciation of balance must be acquired by persistent study and practice. It is this eye and hand ability that can not be overvalued by the dispenser; such will help the exploitation of his scientific attainments as nothing else can. It speaks loudly of control, of care, of accuracy and of culture. Label writing, prescription copying, package addressing may be made to embellish where they are so very often made to destroy the art of dispensing. Is it not, then, good business sense to see that the former effect is produced?

The special manipulations, those peculiar to dispensing, may be more appropriately treated as a pharmaceutical subject. In weighing and measuring, trained eyes and hands may be made to save much time, the very kind of time that is money. The training that will enable the eye to quickly bring the sight of the rifle properly on the target, will quickly catch the marking on a graduate. The same eyes will soon learn to weigh substances and will later need balances for certification only. And it will be trained hands that will quickly follow the eyes' directing, when their every movement will be graceful because useful; efficient movements are always graceful, because they accomplish the desired end with the least friction and the least loss of energy. Does this not apply when the graduate is steadily brought on a line with the eye, body erect, by the arm, and is it not outraged when the whole upper half of the body is repeatedly bent to catch the markings on a resting graduate. If it

is proper that the handle end of the table knife and fork should rest in the palm of the hand, a fact seemingly not appreciated by some very excellent persons, and in this way to be safely but loosely held between the thumb and fingers, so it is with the spatula. In this position and so held, it will always be most useful, most effective and best controlled; it will of course be most gracefully handled. The stiff and awkward hand grasp, too common, is one of the greatest hindrances to rapid and successful dispensing. This is most apparent in rolling the pill pipe. The practiced operator fairly "whips" the cylinder into shape and to the required length while holding it under perfect control with the spatula. The same supple handling of the spatula makes it most useful in all operations and it is this loose but certain hold of the pestle also, that must be acquired before one may become master of this most effective implement. Pestles should, invariably, be **directed** by the fingers, but the force should come from the palm of the hand.

It is in operations where the hands alone are used that they do their best work, and he who works as many fingers at a time as possible is an economist and a winner. One finger and one palm can be made to roll but one pill at a time and this slowly and awkwardly, but six fingers and two thumbs may be made to roll four pills at a time, quickly and gracefully. It is in wrapping powders and making packages, when one has learned to use nearly all his fingers and both thumbs all the time, that he learns to respect the wonderful mechanism of his hands and almost concludes that they were especially formed for this particular purpose. The dispenser may, indeed, test his dexterity and be led to further practice, when he fails to find appropriate and effective use for every digit at the same time when wrapping a package.

It is because I have noticed a lack of sufficient training in dispensers, especially in students, that I have been induced to bring the subject before you for discussion, hoping to establish its importance and lend some assistance toward the discovery of the underlying principles directing it.

The Geographical Distribution of the new officers of the association and the sections is as extended as any one can desire.

MEDICINAL AND POISONOUS PLANTS OF CALIFORNIA

By Albert Schneider, Ph. D.

Professor Economic Pharmaceutical Botany, Histology and Bacteriology in the California College of Pharmacy.

76. **Andromeda** species. Heath-worts. Ericaceæ.

The group requires further study. Apparently a mixed genus. Several species have been used as a wash for ulcers. The shoots of **A. mariana** are said to be poisonous to sheep.

77. **Andropogon citratus**. Lemon grass. Gramineæ.

This grass has a very delicate lemon fragrance. Yields oil of lemon, useful in perfumery. Could no doubt be cultivated profitably for the manufacture of perfumery and sachet powders.

78. **Andropogon sorghum halepensis** Haeckel. Johnson grass. Sorghum. Gramineæ.

A common weed. A useful forage plant, rich in sugar.

79. **Anemiopsis Californica** Hook. Yerba Mansa. Saururaceæ. Piperaceæ.

Considered to be a very useful remedy for cuts, bruises, sores and sprains. It is also said to be a useful diuretic, in rheumatism, as a blood purifier, in asthma, malaria, dysentery, gonorrhœa, etc. (U. S. Geog. Surv. Wheeler's Report, Bot. 6:49.) (H. H. Rusby. Drug-gists' Circular, Jan., 1890.) (W. H. Dunlap, Yerba Mansa, College Thesis. 1901.) (E. B. Maze, Thesis 1901.)

80. **Anemone globosa** Nutt. Red wind flower. Ranunculaceæ.

Requires further study. Said to be poisonous.

81. **Anemone quinquefolia** L. Wind flower. Ranunculaceæ.

Found in shady mountain woods. Perhaps identical with the European **A. nemerosa**. Poisonous to cattle. Well known medicinally. (Am. Journ. of Pharm., 34:300, 1862, and 45:299, 1873.)

Other species of *Anemone* are cultivated in the State.

82. **Angelica hendersoni**, **A. tomentosa**, and the varieties **elata** and **californica**. Umbelliferæ.

These require further study. The Indians as well as whites use angelica root as a valued remedy and talisman. Chewed and rubbed on, the root is said to prevent as well as to cure rattlesnake bites. It is given in colic, catarrh and colds, for sore eyes, etc. The fresh sprouts are eaten.

83. **Angelica** sp. (?) Umbelliferæ.

An unknown species growing on the Sierra Gorda; has strongly aromatic roots and is said to be very useful medicinally. Young shoots are eaten. (Contrib. U. S. Natl. Herb. 7: No. III. 371.)

84. **Anhalonium lewini** Henning. Cactus. Pellote. Cactaceæ.

Native of Mexico, said to be a powerful cardiac and respiratory stimulant, used in angina pectoris and asthmatic dyspnœa.

Several other species of *Anhalonium* have been used by Mexicans and Indians. The top of the branch of **A. lewini** constitutes the "mescal button" used by the Kiowa Indians of the Rio Grande to produce intoxication during some of their religious ceremonies. The cerebral manifestations due to this stimulant are extraordinary visual hallucinations, visions of infinite beauty, grandeur and loftiness, alternating with visions of monsters and various gruesome forms. There are also remarkable color hallucinations. The intoxication is not unlike that produced by Indian hemp.

As a remedial agent *Anhalonium* has

also been tried in hypochondriasis, nervous headache, neuralgias, gout, hysteria, insomnia and other disorders. Various principles have been isolated, notably the alkaloids anhalonine; pellotine and an oily lophophorine. (Lewin in Archiv. für Exp. Path. und Pharm.). Other alkaloids have been isolated from other species (Pharm. Journ. Trans. 52, 1899.) (Pharm. Journ. Trans. 457, 1898.)

85. **Anona cherimolia.** Cirimoya. Custard Apple. Anonaceæ.

A native of Peru. Quite extensively grown in southern California. Fruit is much relished and brings a good price in the open market. **A. macrocarpa**, another native of South America, is also cultivated in southern California. Fruit large and highly relished. **A. reniformis** and other varieties are also cultivated.

86. **Anona muricata** L. Sour sop. Custard Apple. Anonaceæ.

This plant is cultivated in portions of southern California. The large fruit is popular in the South. An acid drink is made from the juice. The seeds are said to be poisonous, and are used to poison fish; to exterminate lice and insect pests. The bark is drastic purgative.

87. **Antennaria parvifolia** Nutt. Cudweed.

Reported to be poisonous. Requires study.

88. **Anthemis cotula** L. Dog fennel. Mayweed. Compositæ.

A very common introduced weed with highly irritating properties. Used for colds, rheumatism, and in the preparation of an eye-wash. Has irritating properties when applied to the skin. An ointment used for rheumatoid affections is made by frying the flowers in lard. (Contrib. U. S. Natl. Herb. 7: No. III, 392.)

89. **Anthoxanthium odoratum** L. Sweet Vernal-grass. Gramineæ.

Found in California near Mendocino City and Crescent City and in Marin County. Very fragrant, due to the presence of cumarin. Requires further study. Would prove of value in the manufacture of perfumes (sachet powders). Presence in meadows is said to impart the odor of this grass to other grasses and is supposed to flavor the butter. (Calif. Geol. Sur. Bot. 2:266.)

90. **Apium nodiflorum** Reich. Water parsnip. Umbelliferæ.

This and other species are usually considered poisonous. Formerly used in skin diseases, scrofula, etc. Now rarely used.

91. **Aplopappus palmeri.** Compositæ.

The leaves and twigs are used by Coahilla Indians to relieve swelling and pain. (Barrows.)

92. **Apocynum androsæmifolium** var. **pumilum.** Gray Dog bane. Indian hemp. Apocynaceæ.

Native of California. Properties similar to those of 93.

93. **Apocynum cannabinum** L. Canadian or Indian hemp. Apocynaceæ.

A common plant of which the bark fiber is much used by the Indians in weaving all manner of cordage and cloth fabrics. Native in California. More or less poisonous. Well known medicinally. See Dispensatories. (H. L. Blackman and F. G. Klinkner, College Thesis. 1901.)

94. **Apocynum vestitum** Greene. Indian hemp. Apocynaceæ.

This plant is closely allied to **A. cannabinum** and has no doubt similar properties.

95. **Aquilegia vulgaris** L. Columbine. Ranunculaceæ.

A cultivated plant from Europe. The seeds contain an alkaloid (Aquilegine). The extract of the plant produces

symptoms similar to those by aconite. Though not much used now, it was at one time considered diuretic and diaphoretic.

96. **Aquilegia truncata** F. & M. Columbine. Ranunculaceæ.

Quite common. Seeds perhaps contain an alkaloid like that of **A. vulgaris** (aquilegine).

The ripe seeds are taken internally in biliousness. Properties no doubt similar to those of **A. vulgaris** (diuretic and diaphoretic).

97. **Arachis hypogæa** L. Peanuts. Leguminosæ.

Extensively cultivated. Yield oil and fat used for culinary and other purposes. Eaten roasted as food and used as a substitute for coffee. (Proc. A. Ph. A. (Abs.) 22:151, 1874.)

93. **Aralia californica** Wats. Ginseng. California spikenard. Araliaceæ. (Am. Jour. Pharm. 489-492, 1898.)

98. **Aralia californica**. Wats. Ginseng. California spikenard. Araliaceæ. (Am. Journ. Pharm. 489-492. 1898.)

A decoction of the dried roots highly valued in diseases of the lungs and stomach, and for colds and fevers. **A. spinosa** as well as other species thrive in the State. (Calif. Geol. Surv. Bot. 1:273.) (Contrib. U. S. Natl. Herb. 7: No. III, 371.)

99. **Aralia quinquefolia** (**Panax quinquefolium**) Decne. American Ginseng. Araliaceæ.

This plant is not native of California, but is successfully cultivated in several places. The literature on ginseng and ginseng culture is voluminous. Exaggerated opinions are published by interested parties with regard to the immense profits to be derived from ginseng culture. (R. H. Rogers. Cultivation of Ginseng in the United States, and R. L. Pond, American Ginseng, History, Properties and Use.

Theses. Calif. Coll. Pharm. May, 1904.) (See also paper by Geo. V. Nash.)

100. **Aralia spinosa**. Papilionaceæ. Cultivated. Properties no doubt similar to those of **A. californica**.

101. **Aragallus** species. Papilionaceæ.

These require further study, both as to active constituents and as to physiological and toxic properties. Other species are found in the State. (**Aragallus** combined with **Astragalus** by Engler and Prantl in Die Natürlichen Pflanzenfamilien.)

102. **Aragallus** (**Astragalus**) **besseyi**. Ryd. Purple loco weed. Papilionaceæ. Poisonous. Fatal to cattle.

103. **Aragallus lagopus** Greene. Purple loco weed. Papilionaceæ. Poisonous.

104. **Aragallus lambertii** (Pursh) Greene. Colorado loco vetch-Papilionaceæ.

Wider range than that of the woolly loco weed (**Astragalus mollissimus**), but closely similar in all other respects.

105. **Aragallus spicatus** Ryd. White loco weed. Papilionaceæ. Poisonous.

106. **Aragallus splendens** Greene. Silvery loco weed. Papilionaceæ. Poisonous.

107. **Araucaria** species. Pines. Coniferae.

A number of **Araucaria** species have been introduced and thrive well. The so-called Norfolk pine or Norfolk island pine (**A. excelsa**) is a large, handsome tree. They have the constituents of pines generally. Turpentine is obtained from several species. They are familiar ornamental plants throughout the State.

108. **Arbutus menziesii** Pursh. Madrona. Ericaceæ.

Fruit said to be edible, though some claim it is poisonous. Grown at the Chico Station. Charcoal is used in

making gunpowder. Bark for tanning. Cows will occasionally eat the leaves. The Indians use a leaf infusion for colds. (Contrib. U. S. Natl. Herb. 7: No. III, 374.)

109. *Artium lappa* L. Burdock. Compositæ.

Well known medicinally. Seeds twenty-five cents per pound. Roots twenty-five or thirty cents per pound. Culture could no doubt be made profitable. Noxious weed when not checked.

110. *Arctostaphylos glauca*. Ericaceæ. Native. Well known medicinally. Easily cultivated.

111. *Arctostaphylos manzanita* Parry. Manzanita. Ericaceæ.

Ripe fruit eaten, forming a very important article of diet among the California Indians. Tea of leaves much used for colds. Indians make "manzanita cider" from the crushed ripe fruit. Juice of plant is applied to sores and ulcers. The plant in its medicinal properties is closely similar to *A. glauca*.

112. *Arctostaphylos tomentosa* Dougl. Manzanita. Ericaceæ.

Less common than *A. manzanita*, but closely similar and similarly used.

113. *Arctostaphylos uva ursi*. Ericaceæ. Cultivated. Well known medicinally.

114. *Argemone mexicana* L. Prickly poppy. Papaveraceæ.

Common in cultivation. The plant has marked emetic, purgative and narcotic properties. Extensively used medicinally for all sorts of ailments, as a cathartic, etc.

115. *Aristolochia* and *Asarum* species. (See *Asarum*.) Aristolochiaceæ.

The species have long been known medicinally. The native species require further study. (Calif. Geol. Surv. Bot. 2:101.)

116. *Aristolochia serpentaria* L. and *A. reticulata* Nutt. Snakeroot. Serpentina. Aristolochiaceæ.

Not yet introduced, but would no doubt thrive well in moist, hilly woodlands.

117. *Armeria vulgaris* (Statice *Armeria*). Maiden pink. Plumbaginaceæ.

Said to be an active diuretic. Should be more carefully studied.

118. *Arnica* species. Arnica. Compositæ.

The California species require further study. The medicinal *A. montana* of Europe is reported from the northwestern United States. Is readily cultivated. Used in catarrh, nervous affections, dysentery, rheumatism, dropsy, gout, etc. The entire plant may be used; the flower heads are, however, preferred.

119. *Arnica fulgens*. Arnica. Compositæ.

Poisonous.

120. *Arnica monocephala*. Arnica. Compositæ.

Poisonous.

121. *Arnica montana* L. Arnica. Compositæ.

Well known. Flowers and roots and rhizomes used. Could be cultivated.

122. *Artabotrys odoratissima*.

A native of India, cultivated in southern California. The flowers yield the famed "ylang-ylang" oil of the Chinese.

Synthetic Camphor

To distinguish between natural and synthetic camphor, the use of the polariscope is said to be effective. According to G. & R. Fritz (Pharm. Zeit.) spirit of camphor made with synthetic camphor can be distinguished from that prepared from natural camphor by absence of action of polarized light. Natural camphor deflects polarized light toward the right. In view of the high prices of natural camphor at the present time, this method of differentiation is of value.

PRODIGIES AND FREAKS

Professor Ely of Drake University says: "Infant prodigies are no better than idiots. It is better to be the sluggish, plodding man with the hoe than the long-haired, sensuous man with the bow. Music and art are fine things when diluted with a little football and a little wholesome reading and sleep, but the men whose faculties are developed in one direction only, cannot fail to be unstable and cranky."

There is much truth in the above. Parents take great pride in showing off their infant prodigies, little realizing that this precocity is a sign of dangerous defectiveness. Some turn out idiots; others, more fortunate, die at an early age. Such cases should be placed under the care of mental specialists. The "very good" person should be studied, as he (or she) is just a "little off." Keep an eye on those who "have no difficulty in keeping the ten commandments." There is a flaw somewhere. Some specialists declare that men who do not use tobacco in some form and shun alcoholic drinks are abnormal. Others declare that, since tobacco and alcohol are stimulants, and since the physically normal man does not require artificial stimulants, their use would be indicative of abnormalities, rather than the abstinence from their use. Nothing develops freakishness so readily as a life of idleness, whether accompanied by poverty or riches. The filthy tramp and Harry K. Thaw belong to the same class, mentally and morally. They are not insane, perhaps, but they are "nutty," and a menace to society, because we can never know when the beast nature will gain the ascendancy, resulting in some dastardly crime. Both should be locked up, **before** they commit crimes, not **after**. The influence of the idle rich is pernicious.

There should be a law compelling them to engage in profitable labor; that is, labor profitable to themselves as well as others.

One-sided mental (as well as physical) development is bad. Our school system should aim to develop all of the faculties. Parents should see to it that not a single nook or corner in the child's mind is allowed to become musty through lack of use. The child has a right to a wholesome physical, mental and moral development.

The Active Constituent of Insect Powders.

S. Sato of Japan claims to have discovered the active principle of insect powders. It is a resinous substance having acid properties. It is insoluble in water and dilute acids, but very soluble in ether and alcohol. The fresh preparation is neutral in reaction, but gradually acquires acidity. It is said to have toxic properties with cold blooded animals, but practically non-toxic with warm blooded animals. Sato proposes the name pyretol for this substance.—Journ. Pharm. Soc. of Japan.

Transmutation of Elements.

Ramsay has succeeded in obtaining lithium through the action of radium upon a solution of copper sulphate. Radium emanations left to themselves or mixed with hydrogen, are in time transformed into helenium. However, if the radium emanations are brought in contact with water, neon is formed, besides traces of helenium. If the water contains the salt of certain metals, as of silver or of copper, xenon (or crypton) is formed. Other transmutations have been noted. Perhaps the distorted dreams of the alchemists were nearer realities than we supposed.

**REPORT OF THE SECRETARY OF
THE HISTORICAL SECTION OF
THE AMERICAN PHARMACEU-
TICAL ASSOCIATION.**

The Secretary hesitates to offer an excuse rather than a report, but the precedent set in previous sessions, together with the vote of the Section on the respective duties of the Chairman and Secretary, which resulted in limiting these to a merely executive and advisory capacity, have deterred him from being too bold in assuming proscribed privileges.

It is well to go slow in transmitting authority, but I believe the time will come when it will materially advance the interests of this Section to charge the Chairman and Secretary with the usual functions of such officers in other sections. The proper selection of officers who will labor in harmony with the Historian will obviate any possible disadvantage. The work of this section branches out in many directions, but the purpose should be continuously kept in mind so that the history made by our predecessors and of our contemporaries may be brought into convenient form and that the greatest benefit may be derived by us and our successors. Far be it from me to suggest that the Section should not give pre-eminence to the Historian; and I am more than ever impressed that his office should be a permanent one, or, perhaps better, the present incumbent should hold it so long as convenience will permit. The year is too far distant to speak of who shall be next, but, in the very nature of things, the success of this work depends upon such permanent officer. The Historian should each year outline the special work to be followed by the Chairman and Secretary. The latter officers can, in order to fill in, interest some with subjects they are qualified by informa-

tion or association to submit. The suggestion will be understood to refer to individuals or institutions, and the occasion, important events in their history. The officers annually elected may lose sight of the objective; the Historian, being familiar, will direct. As heretofore stated, we divert in this section, and, perhaps for a season, neglect adding to the chains we are linking; the next year we add to, so that by keeping in mind the work begun, we present such a variety of interesting subjects that every one can contribute who will aid in making these historical data useful because of their completeness.

Last fall the Secretary sent out addressed (and in most cases, if not all) stamped return envelopes, to Boards of Pharmacy, State Associations and Schools of Pharmacy, containing blanks requesting information bearing upon related subjects. Quite a number of returns were received. These have been bound and are herewith presented. Much of the information is valuable, though some is already in possession of the Section. It was hoped that more would be said of the bodies appealed to and of the individuals who had contributed their labors to the cause of Pharmacy. **The Druggist's Circular** collected similar data and achieved better results; these were published in their memorial number, issued January of this year. In view of that fact, a bound copy was requested for this Section, with the hope that it would be gratefully accepted. Taking these two sources into consideration, the results speak fairly well, especially as the circular letters procured for the Historian complete records from some of the bodies addressed. Appeals for contributions and papers were freely made by the usual methods. With proper sollicita-

tion, all journals might be induced to present as complete files of their publications as possible. Their value to the Section is great, for they contain the records of events we aim to collect.

We desire to thank those who aided us.

The program prepared for the Session is before you.

Sincerely,

E. G. EBERLE,
Secretary Historical Section.

INSECTS SPREAD DISEASE.

The spreading of disease by insects is now proving to be much more common than was believed to be the case but a year or two ago or even a few months ago. The greatest attention has hitherto been given to those diseases wherein the insect acts the part of a secondary host in which the parasite undergoes some kind of a change not possible in man—malaria, yellow fever, filaria, Texas fever, etc. It is interesting to find increasing attention being given to the possibility of the mechanical transmission of infective organisms from man to man by means of the commoner insects, flies, bed-bugs, roaches and fleas. There is no reasonable doubt that in recent wars flies were responsible for the transfer of typhoid bacilli to foods which were not screened.—American Medicine.

TREES THAT YIELD GOOD SOAP.

Consul-General Richard Guenther makes the following report from Frankfort, Germany:

Mr. R. Lang, of this city, councillor of commerce and delegate to the government of Algiers, states that he has just returned from a commercial tour of study in Algiers, where he was called by that government. During his trips he met one of the largest

landed proprietors, Mr. S. Bertrand, chairman of the Algerian Agricultural Society at L'Arba, near Algiers, whose domain comprises many thousands hectares (hectare, 2.471 acres), which are planted with vines, oranges, olives and soap trees. He has succeeded, after numerous experiments, in cultivating a large plantation of soap trees, from which he gathers several thousand tons of berries annually. The soap tree resembles an apple tree of medium growth. The fresh fruit is green, the interior of which, besides the kernel, contains a yellowish, gelatinous, sticky substance. The fruit used for making soap contains three times as much soap as the "panama" wood. It seems destined to be of great service to the cloth and linen manufacturers, and, above all, for domestic purposes, as it can be used to clean linen and silken fabrics and colored embroideries. The colors are in this way renovated, whereas the use of ordinary soap makes them run together.

SHAVING WITH A SPONGE.

A clean shave in ten minutes without a razor is the latest comfort to be enjoyed by Londoners. This is accomplished by the application of a certain paste, the invention of an English chemist. This paste is applied as is lather or shaving cream, allowed to remain upon the face for a few minutes, and then wiped off with a sponge. Its effect upon the beard has been to render the hairs so brittle that they break, and are wiped off with the paste. The entire operation consumes but a few moments, and is scarcely more trouble than bathing the face.

Among the other advantages claimed for the "shaving" paste is that it is antiseptic to a high degree, absolutely harmless and inexpensive, the cost of a "shave" being about one cent.

THE ADMINISTRATION OF PURE DRUG LAWS

By Joseph W. England.

There is a strong tendency on the part of many State legislatures to place the administration of pure drug laws in the hands of State Boards of Health, rather than in the hands of those having drug knowledge, such as Boards of Pharmacy. This preference has been shown by California, Colorado, Delaware, Indiana, Kansas, New Hampshire, New Jersey, South Carolina and Tennessee; and also of the Commissioner of Agriculture, as in Florida, Georgia and North Carolina; of the Food Commissioner, as in Washington; of the Dairy and Food Commissioner, as in Oregon and Texas; of the Prosecuting Attorney of each county, as in West Virginia, and of the Agricultural Experiment Station, as in Maine. In one State only (Iowa), so far as the writer can learn, was Pharmacy recognized, and in this State the pure drug law, passed on April 6, 1907, was placed under the executive control of three Pharmacy Commissioners.

Now, why are the State Boards of Pharmacy so persistently and almost unanimously ignored in this matter? The answer is probably to be found in the aggressiveness of the State Boards of Health, and other bodies, and the non-aggressiveness of the usual State Boards of Pharmacy. In addition, many of the pure drug laws are combined in one bill with pure food laws, and that the executive control of such law has been placed in the hands of State Boards of Health can only be explained apparently on the ground of political influence. Logically, if the control of such law is not to be given to Boards of Pharmacy, it belongs

much more properly to Food Commissioners than Boards of Health.

There is a possible significance in the fact that the membership of the State Boards of Health in California, Colorado, Delaware, Indiana and Kansas is, in every instance, **entirely** made up of physicians, and in New Hampshire, New Jersey, South Carolina and Tennessee, it is made up of a majority of physicians; and in all these States the pure drug law enacted has been placed under the control of State Boards of Health. Physicians are very active in legislative matters affecting the public health, and until a recent period have had, as a rule, little or no sympathy for pharmaceutical representation in matters of legislation.

State Boards of Pharmacy know, as all pharmacists know, that the administration of a pure drug law requires technical knowledge of an unusual character; and that such a law can be best administered only by those skilled in drug matters and not by those who know little or nothing of the subject. It is unfortunate, in more ways than one, that State Boards of Pharmacy, generally, have not been more aggressive in the past in prosecutions for the adulteration of drugs under the pharmacy laws. That they have not has been due to the lack of sufficient funds.

As an illustration of the results of an aggressive policy by a Board of Pharmacy, the writer would quote from a letter received from Mr. Warren L. Bradt, Secretary of the Middle Branch of the New York State Board of Pharmacy, as follows:

"Replying to your question of the enforcement of the laws relating to the adul-

teration of drugs, and as to the tendency to transfer this work to the State Board of Health, and asking how this tendency may be checked, would state that my opinion, based upon seven (7) years' experience as Secretary of the New York State Board of Pharmacy, is that the most effective way to have the examination kept in the hands of the Board is to have the Board do all of the work along these lines it can. Several bills were introduced in the present Legislature along the lines of the National Pure Food and Drug Law, whereby the examination of drugs would be taken from the Board of Pharmacy and given to the Department of Health. The Board of Pharmacy and the State Association vigorously opposed these measures, claiming that the Department of Health had not within the past eight or ten years made any collection or examination of drugs, as the State had failed to make an appropriation for this work. In this respect, I do not believe New York State differs from any other, as the legislators all seem to object to appropriating money for this class of work, while the Board of Pharmacy showed that in the past four (4) years it had collected and examined 11,500 samples, and last year (1906) 3,554.

"We showed, also, that the percentage of adulterations had been reduced from about 40% to something less than 11%. The Department of Health was fully conversant with the work this Board has been doing, and the good results it has attained without any cost to the State, we receiving no finds whatever through legislation, and asked that the work be continued along these lines.

"I doubt if any State Board of Health will take up and perform the work as vigorously as the State Board of Pharmacy should do, and, if they failed to do it through lack of funds, I believe the Pharmacy Law should be amended so that sufficient money from registrations should be provided for the carrying on of this work."

Now, let us look at the other side of the picture. The writer has received the following letter from Mr. George C. Dieckman, Secretary of the Eastern Branch of the New York State Board of Pharmacy, as follows:

"I believe that only Boards of Pharmacy should be empowered to enforce the laws relating to the adulteration of drugs, and such as relate to the sale of drugs, poisons, etc. Boards of Health and Agricultural

Boards, as a rule, do nothing when such powers are given them; or if anything is done it is done in such harsh manner that the laws fall into disrepute. Example: Soon after the press in your city raised a hue and cry about the indiscriminate sale of cocaine and preparations containing this, alleging that pharmacists in general were guilty of such practice, our local health board promulgated an ordinance prohibiting the sale of cocaine and preparations containing it, except upon order of a duly licensed physician. The facts are, that only a very few of our pharmacists were guilty of the practice charged, and these few were being rapidly brought to terms by our Pharmacy Board. Now, how did the Board of Health proceed to enforce its ordinance? Was it enforced in such a manner as would have resulted in benefit to the public? The following instance will show just what was done. Inspectors of the Board of Health collected from a number of our pharmacists such articles as Mentholated Throat Tablets, containing each 1/280 gr. of a cocaine salt, and then proceeded to hail the **criminals** before a police magistrate, who could do nothing but hold the accused for trial before the court of Special Sessions. It is not at all alleged that the article in question is a 'habit producer,' the alleged violation being the sale of a preparation of cocaine. The primary object of the Health Board ordinance was to abolish the traffic in cocaine in such form as would lead to the formation of a habit. It will therefore be seen to what extremes our local authorities resorted in the **protection** of the public. A warning to discontinue the sale of these tablets would in each instance have sufficed, and criminal proceedings were entirely uncalled for.

"I do not believe that it would be wise to create Boards of Pharmacy as an adjunct to the Health Boards, unless such Pharmacy Boards can be created by the pharmacists themselves, perhaps through the medium of their State Associations. Otherwise I am afraid that the salary which would have to attach itself to such office, and the funds at the disposal of such a Board, would make fine pickings for the politicians."

The writer has received, also, a letter from Mr. W. R. Ogier of Columbus, Ohio, who for twenty years has meritoriously served the State of Ohio as Secretary or Clerk of the Ohio State

Board of Pharmacy, and who has been rewarded for his fidelity by being refused a reappointment this year. The letter is an unofficial one, and reads:

"The Ohio laws relating to the adulteration of drugs are placed with the Food and Dairy Department. The Board of Pharmacy is charged only with the administration of the Pharmacy law, and this embraces simply the practice of pharmacy, that is, the examination and registration of candidates to practice pharmacy, and the enforcement of the provisions of the act requiring that drug stores must be under the supervision of registered pharmacists.

"The Food Commissioner is elected in the general elections for State officers, and with one exception has been a farmer since the law creating the department was enacted a good many years ago. It will at once occur to you that the situation is anomalous when a farmer is charged with the duty of providing the people with pure drugs, although, with one exception, the pharmacists of the State have fared reasonably well under this sort of administration. But there is no guarantee that the future will prove satisfactory, since the people are liable to elect any sort of an individual to a political office.

"It is my opinion that all laws relating directly to the practice of pharmacy should be administered only by boards of pharmacy, and while State boards of health may be an improvement on the granger plan, yet they are far from ideal officers for such service as should be given the public for securing pure drugs. The trouble in Ohio is, as perhaps in other States also, that rarely can boards of pharmacy secure such legislative appropriations as will enable these boards to properly administer the law, while boards of health and departments controlling foods do not have such difficulties to contend with. Doubtless there are too many boards and departments connected with all our State governments, many of which might be economically and wisely consolidated, and I would look with favor upon a State bureau of pharmacy under the department of Health or Foods which should be under the supervision of pharmacists, and which should have charge of all laws in any manner connected with the practice of pharmacy. This plan might secure proper funds from the State through the department which already is generously supported by the State for carrying on the work in a satisfactory manner."

The key-note of the situation is probably to be found in the statement of Mr. Ogier, that "Boards of Pharmacy can rarely secure such appropriations as will enable the Boards to properly administer the law."

It is a great mistake to regard a pharmacy law as being intended for the benefit of pharmacists only. It is nothing of the sort. The enactment of such a law is police legislation; and the only excuse for police legislation is protection of the public against incompetency in the pharmaceutical service. If, incidentally, pharmaceutical education can be improved, so much the better for pharmaceutical service, and, of course, indirectly for the public good; but, primarily, the intent of the law is protection to the whole public, of which pharmacists form but a very small part.

This, then, should be the slogan of pharmacists with legislators: "The State should protect the sick against the dangers of incompetent pharmaceutical service; and the State (not the pharmacists) should pay for that protection by specific appropriations."

What an imposition it is to one element of the public to pay for protection to all; and this is exactly what is done by requiring that all the running expenses of the boards of pharmacy shall be paid out of the fees received from examination and licensure. No specific appropriation is allowed, but if the pharmacists of the State want legislation to protect the general public, they must "pay the freight," not the State.

This has been the spirit of the past. There is the dawn, however, of a better day. Since the passage of the Federal Food and Drugs Act, and also State legislation along the same line, the public has become mightily interested in the necessity of having pure foods

and pure drugs, and has become perfectly willing to stand for appropriations to this end, and your legislators are ever ready to meet a public demand that is sufficiently strongly expressed.

In addition to the absence of specific appropriations for work, another bad feature of the usual State pharmacy law is, in the writer's judgment, the fact that the members of the State Boards of Pharmacy are not paid stated salaries, but only per diem wages for days of actual service. This system is radically wrong. The laborer is worthy of his hire, whether he be a farmer or a pharmacist. The State cannot get the best service unless it appeals to the best men; and it cannot appeal rightly to the best men unless it offers an adequate wage, or if it does appeal, and the best men do respond—as many, very many, of our most able pharmacists have done, at considerable sacrifice to themselves—then the State has asked a personal sacrifice that in common honesty it has had no right to ask. The State should pay for its own protection, and if it cannot afford to pay, then it has no right to ask the pharmaceutical profession to assume the burden. If the State cannot afford fair salaries to the usual five members of their State boards of pharmacy, then it should follow the example of the State of Iowa, and have three Pharmacy Commissioners, with a Secretary-Treasurer (who cannot be a member of the board), though even this State misses the real point of issue by paying its Secretary-Treasurer a salary not exceeding \$1,800 a year, and its Commissioners \$5 a day for each day actually engaged in official duties, both payments to be made from the fees received.

Undoubtedly, there are certain advantages in a concentration of work along similar lines, if a proper division

of responsibility can be made. The ideal method of administering pure food and drug laws in the States would seem to be through a Food and Health Commission or Department, to be composed of a Dairy and Food Commissioner, three Health Commissioners (in place of the State Board of Health), three Drug Commissioners (in place of the State Board of Pharmacy), and the Governor, Attorney-General and Commissioner of Agriculture as ex-officio members. The Dairy and Food Commissioner should have, of course, jurisdiction over dairy and food products, the Commissioners of Health over matters of hygiene and sanitation, and the Commissioners of Drugs over drugs and the examination and licensure of applicants for pharmaceutical practice. In this way, the food and health service of the States could be economically and effectively administered by salaried commissioners especially qualified for the work, while specific appropriations from the State could be more readily procured than now, and prosecutions by the Attorney-General more readily obtained.

For Purification of Glycerin

In treating distillery by-products, ammoniacal nitrogen may be removed by neutralizing the substance with lime and heating the decanted vinasse in an autoclave with magnesia or barium hydroxide. The glycerin solution after removal of ammonia and alkali salts may be concentrated, and treated with a solvent such as alcohol, which also precipitates mineral and organic matters, the glycerol is recovered by distillation. Pure ethyl acetate may take the place of alcohol as a solvent, and the portion that remains in the aqueous layer may be recovered by distillation.—Paint, Oil and Drug Review.

REPORT OF THE COMMITTEE ON WEIGHTS AND MEASURES

Of the American Pharmaceutical Association.

To the President and Members of the American Pharmaceutical Association—Gentlemen: Your Committee on Weights and Measures have not been able to accomplish much, if any, good, for two reasons: First, want of time, and second, want of unanimity among the members of the committee.

First, as to time: The chairman was unaware of his appointment until several months after the adjournment of the last annual meeting of the Association, and did not learn what the duties of the committee were nor the names of the other members until he received a copy of the Annual Proceedings of the Association not many weeks since. As there are forty-five members of the committee, it was not possible to do much in so short a time. Congress was no longer in session, and it seemed best to direct our efforts to making sure of more efficient work next year.

Now as to the views of the members of the committee: It was shown very forcibly by Mr. Charles H. La Wall, chairman of this committee for the year 1905 and 1906, that the members of the committee of that year were partly opposed and largely indifferent to the objects for which they were appointed. The chairman of your committee, therefore, decided to ascertain the attitude of the members of the present committee on the subject, and at once sent out a letter to each one with the following queries, and requested an immediate reply:

1. Are you in favor of the enactment by Congress of the following bill:

A bill to fix the standard of weights and measures by the adoption of the metric system of weights and measures.

Be it enacted by the Senate and House of

Representatives of the United States of America in Congress assembled.

That from and after the first of July, nineteen hundred and eight, all of the departments of the Government of the United States, in the transaction of business requiring the use of weights and measurement, shall employ and use the weights and measures of the metric system.

2. If not in favor of it as it stands, would you favor it if the following exception were added: "Except in the measurements in the survey of public lands"?

3. Can you suggest any practical action that might be taken by the American Pharmaceutical Association that would hasten the passage of such a law?

Out of the forty-five (including the chairman) only eighteen replies had been received when it became necessary to formulate this report. These answers were so diverse on many points that it was difficult to tabulate them, but the following summary is practically correct:

Opposed to the proposed law as submitted in question No. 1.....	10
In favor of proposed law as submitted in question No. 1.....	6
Not decided	1
No answer	1
	18

Opposed to any such law.....	5
Opposed to proposed law as submitted in No. 1.....	8
In favor of proposed law or nothing.	3
Not decided	1
No answer	1
	18

Opposed to any such law.....	5
Opposed to proposed law as expressed in No. 2.....	2
In favor of proposed law, with addition as in No. 2 (if it is the best we can get).....	9
Not decided	1
No reply	1
	18

It is manifest that, with such differ-

ences of opinion among the members of the committee, it would have been impossible to accomplish any good if we had had all the time we needed.

Your committee, therefore, recommend:* First—That a smaller committee be appointed, not exceeding five in number, who are all known to be favorable to the objects of the Association; that they agree upon some plan of action, and, when the time comes for bringing the question before Congress, that they seek the co-operation of persons in each State and Territory who will exercise their influence with their respective Senators and Representatives in favor of appropriate legislation.

Second—That at the proper time a delegation of this committee (to be not less than two in number), seek an interview with such Congressional committees as may have the question before them, for the purpose of demonstrating the practicability of the proposed change.

Third—In view of the known strong objection to a change in our System of Weights and Measures on the part of many large manufacturing and jobbing houses, and also of many pharmacists and physicians, that a vigorous campaign of education be conducted for the purpose of familiarizing all parties concerned with the new system, and of overcoming thereby in some considerable degree, their opposition. As aids in this educational work we recommend:

(a) That the use of alternative weights and measures be discontinued in any future edition of the National Formulary that may be published.

(b) That the use of the National Formulary in Commentaries and simi-

*These recommendations embody the replies to question No. 3, as far as they were sufficiently unanimous to be incorporated into this report. They represent the views of a majority of the Committee.

lar works be made conditional upon the doses and quantities being expressed in metric terms only.

(c) That all Colleges of Pharmacy be requested to use the metric weights and measures exclusively in their work, and that students be required to express the doses of all medicines in metric terms.

(d) In order to prepare engineers and others for the early adoption of the metric system, and thereby hasten the time when it can be made applicable to all measurements, we recommend that the experience of the Baldwin Locomotive Works in building engines to be used in France be made known, and such other similar experiences as can be verified from other American or English firms who may have used this system.

Fourth—That the time fixed in the bill when it shall become operative be not earlier than January, 1911.

Respectfully submitted,
W. M. SEARBY, Chairman.

Druggists can no longer manufacture Rock and Rye, as they have done for years. It is also illegal to manufacture articles known to the trade as "Bitters," unless the druggist has provided himself with a rectifier's license. This new law went into effect a year ago last July, and the revenue officers are at work investigating violations. Rock and Rye and Bitters must be purchased from those who have a rectifier's license permitting them to manufacture same.

When Senator Hoar learned that a friend who they thought had appendicitis was in reality suffering from acute indigestion, he smiled genially. "Really," said he "that's good news. I rejoice for my friend that the trouble lies in the table of contents rather than in the appendix."—Lippincott's.

Toxins and Antitoxins of Fatigue.

Considerable has been written on the toxins and antitoxins of fatigue and muscular exhaustion. These substances have been isolated and experimented with. The toxin is supposed to occur in opium, lactucarium, and other vegetable substances, in snake poisons and in the endotoxin of tuberculosis. It is in fact widely distributed. Through the judicious use of the toxin, the antitoxin of weariness can be developed, causing an increase in muscular activity. It is stated that the toxin may be formed in milk through electrical and chemical stimulation. Sterilization of milk with formalin is said to cause the formation of small quantities of the toxin of weariness, milk should therefore be sterilized by heating.—Apoth. Ztg.

New Opium "Cure"

Recently there have been several news items from the Far East relative to a new anti-opium remedy. E. M. Holmes, curator of the museum of the British Pharmaceutical Society, says that the plant has been identified as *Combretum Sundaicum* Miq.

It will be interesting to all to learn if there is any special truth in this alleged cure. It is highly probable, in our opinion, that it has no more direct bearing upon the pernicious habit than many other drugs which might be mentioned. The most effective treatment thus far devised is confinement in an asylum for the insane for two years. The writer has had opportunity to observe this method of treatment, and is satisfied that it gives good results.

POISON CABINET

That more accidents do not happen when dispensing poisonous drugs is remarkable. Many pharmacists have not even a separate shelf for dangerous drugs. No matter how careful one may be, the multitudinous duties falling to the average pharmacist necessarily at times overburden him. During such times mistakes are possible. If dangerous drugs were kept in a special cabinet, properly labeled, it would serve to im-

press upon the mind that great importance was attached to the drugs about to be used.

In Europe recently there has appeared a new poison bottle, having a lock and key, the latter remaining attached to the bottle. This seems to be going farther than is necessary. Yet all must admit that every pharmacy should have some definite scheme for impressing upon the dispenser that a great responsibility rests upon him when dealing out poisonous drugs.

Bakankosin

From the Druggists' Circular, through "L'Union Pharm.," it is learned that a new nitrogenous glucoside, Bakankosin, has been isolated by Bourquelot and Herissey from the seeds of a Madagascar species of *Strychnos* known as bakanko. It forms large, colorless, odorless, bitter crystals that are moderately soluble in cold water or cold alcohol, and almost insoluble in cold ether. It is decomposed by boiling in diluted mineral acids. It is said to be non-toxic. Whether it will be of any value in medicine remains to be seen.

Great Britain Moves for Pure Food Laws

According to newspaper report, a bill introduced by John Burns, president of the local government board, enabling the Board of Trade to institute more stringent regulations "for the prevention of the danger arising to the public health, from the importation, preparation, storage, and distribution of articles of food," passed its second reading in the House of Commons, August 2, 1907.

It is certainly one of the hopeful signs of the times to see our Uncle John waking up and asking for a pure food law.

Wanted.—A young physician and surgeon of good appearance to associate himself with an old practitioner with established practice. Small town, but an excellent opportunity. We also have an opening for a dentist. Address P. F. Adelsbach, Secretary Board of Trade, Kingsburg, California.

Wanted.—A partner with \$500 to invest in an established business in this city; prefer one to take an active interest; can attend college, at the same time secure practical experience. Write or call to 920 Illinois Street, San Francisco.

NATIONAL ASSOCIATION OF RETAIL DRUGGISTS

The meeting in Chicago last month was a notable event. No less than 2,645 persons registered their attendance, representing thirty-two States. It was the greatest convention the Association had ever held.

An immense amount of business was transacted, and a number of important propositions were given careful consideration. Among the resolutions passed were those dealing with the following questions:

Favoring the enactment of an interstate narcotic and poison law.

Favoring the enactment of the Sherman anti-trust law.

Recommending greater watchfulness over State and municipal legislation affecting druggists, and pledging the assistance of the Association in fighting the same.

Recommending that an effort be made to elect representatives to state and national legislative bodies who favor legislation for the advancement of pharmacy and pure drug and food legislation.

That various steps be taken to improve the condition of pharmacists in the service of the United States Government.

Favoring a sentiment in favor of druggists accepting nominations for positions in legislative bodies, local, state and national, to the end that legislation inimical to druggists may be prevented.

Reaffirming the Association's opposition to the parcel post. Recommending the enactment of itinerant vender laws in the various States.

Suggesting various measures for popularizing among physicians of the U. S. P. and the N. F. preparations.

Recommending that members absolutely refuse to allow window display

or store advertising of articles not price-protested or articles whose wholesale price is more than \$2.00, \$4.00 and \$8.00 a dozen.

Approving the recommendation that the requirement of four years' practical experience in a drug store as a prerequisite to graduation from a college of pharmacy be left to the discretion of each college, but recommending that Boards of Pharmacy require it before issuing licenses to practice pharmacy.

That efforts be made in sundry directions to bring about a limiting of Sunday business in drug stores.

Ordering the California Relief Fund to be held in trust by the Association for another year.

Inviting the American Medical Association to send delegates to the next convention of the N. A. R. D.

The Association very wisely refrained from entering upon any of the three enterprises which had been advocated by some as panaceas for the ills that afflict the body pharmaceutical: (1) associated buying, (2) associated manufacturing, and (3) druggists' fire insurance. These are all business ventures requiring a high order of executive ability. They all call for large amounts of money, and unless under unusually capable managerial control, would invite trouble if not bankruptcy. It is our conviction that the Association is not at present in a condition to undertake any one of them.

Senior Class Note

Professor Carey has been delivering a series of decidedly interesting and instructive lectures on alcohol, its properties, uses and effects, etc.

For Sale.—Drug store in a prosperous and rapidly growing town in Sonoma County. Apply to C. Zetterlund, 711 Sansome Street, San Francisco.

THE PACIFIC PHARMACIST

PHI CHI NOTES

The first meeting of Zeta Chapter, Phi Chi Fraternity, was held on Sept. 20, 1907. The following officers were installed for the ensuing year:

Worthy Chief Counsellor, F. J. Belz; Worthy Vice-Counsellor, F. A. Hund; Worthy Keeper of Records and Seals, J. A. Arkin; Worthy Keeper of Finance, J. E. Parsons; Worthy Prelate, P. J. Guedet; Worthy Historian, W. G. Triebel.

The members are taking a deep interest in the Phi Chi this year, and each one enters enthusiastically into the work assigned to him.

The Junior Class has considerable good material to work upon, and several new members have already been pledged and will soon be initiated. The ensuing year bids fair to be a prosperous one for Zeta Chapter.

Brother Stevenson, former W. K. R. & S., did some noble work in obtaining a directory of Phi Chi members after the earthquake, when conditions were so unsettled and the whereabouts of any one so hard to determine.

IMPORTANT FIGURES OF INTEREST

Through the "Paint, Oil and Drug Review" the following figures are produced to show to what extent we use some materials that come from abroad. The figures are for the year ending June, 1907:

Free of duty—

Cinchona bark, 3,515,958 pounds, or 560,695 pounds less than preceding year.

Logwood, 38,230 tons.

Gum Arabic, 5,088,066 pounds, an increase of nearly one million pounds over preceding year.

Camphor (crude), 3,138,070 pounds, a very marked increase.

Copal, cowrie and damar, 26,681,736, about six millions increase.

Indigo, 7,170,057 pounds.

Licorice root, 66,110,863 pounds, a marked decrease.

Potassium nitrate, 12,886,950 pounds.

Cinchona bark alkaloids, 4,621,830 ounces.

Sulphur, crude, 35,326 tons.

Vanilla beans, 969,949 pounds.

Corkwood or bark, crude, valued at \$2,356,052.

Phosphates, crude, 24,350 tons.

Oils, mineral, 27,240,852 gallons.

Oils, vegetable, fixed or expressed, valued at \$173,325—a marked reduction compared with previous year.

Dutiable—

Argols or wine lees, 30,540,893 pounds.

Brushes, valued at \$1,586,556.

Coal, tar, colors and dyes, valued at \$5,635,001.

Glycerin, 38,029,073 pounds.

Opium, crude, 565,252 pounds; opium, prepared, 163,278 pounds—at \$9 per pound, \$6,556,770.

Sumac, ground, 12,487,003 pounds.

Glue, 6,466,312 pounds.

Olive oil, 3,449,517 gallons.

Toilet soaps, 1,219,327 pounds.

Signs Not Always True

Drummer, entering a Western Addition drug store, is saluted by the proprietor: "Well, how's Redington & Co. this morning?"

Drummer: "Redington & Co. no more: it's Coffin-Redington Co. now."

Druggist: "I thought something was up. When you see a coffin going into a house you naturally supposed something has happened."

Drummer: "But the house is more alive than ever."

Joking druggists subsides, and makes it all right with the drummer by giving him a good order.

BOOK NOTICES AND REVIEWS

The Physiology of Alimentation, by Dr. Martin H. Fischer, Professor of Pathology in the Oakland College of Medicine, Oakland, California; viii+348 small octavo pages, cloth bound, \$2.00 net. John Wiley & Sons, New York City.

This is a most excellent, thoroughly up-to-date work on alimentation. The subject is treated very comprehensively and yet in a simple, easily understood style. We are particularly impressed with the full treatment of the digestive enzymes or ferments and the bacteria of the intestinal tract.

In consideration of the fact that the average life of a scientific text-book is about ten years and that this work by one of the best authorities on the subject has just been issued, we have no hesitation in pronouncing it the most authoritative treatise of its kind at the present time.

It is intended for students of physiology. The very complete citation of authorities makes it exceedingly valuable to those who may wish to continue investigations along the lines followed by the author.

The work should be in the hands of every medical student. There is a decided tendency to neglect the subject of alimentation in many of our leading medical colleges. Physiology, sanitation and related subjects form the very groundwork of medicine.

Presswork, paper and binding leave nothing to be desired. S.

Introduction to Infections and Parasitic Diseases, by Millard Langfeld, A. B., M. B. (Johns Hopkins), Bacteriologist Omaha City Board of Health; xvi+260 small octavo pages. P. Blakiston's Son & Co., Philadelphia.

This is an excellent little work, intended primarily for the use of nurses, although it will also do excellent service as a quick reference work for the busy practitioner. It gives a brief, concise treatment of nearly all infections and parasitic diseases, with instructions as to the best methods of disinfection.

The treatment of the subject-matter begins with the causes of disease, physical, chemical, microbic, animal, etc. The opsonic theory is fully explained. The phe-

nomena of infection and inflammation are treated. The avenues of entrance and exit of infectious agents, disinfection and disinfectants, collection and examination of excretions and secretions are treated.

The book contains thirty-three illustrations. Binding, paper and print are excellent. S.

London Botanic Gardens, by Pierre Élie Felix Pérrédès, B. Sc., F. L. S., Pharmaceutical Chemist, Corresponding Member of the Philadelphia College of Pharmacy; vi+99 small octavo pages, paper cover, 31 plates. Wellcome Chemical Research Laboratories.

This work consists of a series of papers which appeared originally in the American Journal of Pharmacy. The subject is treated historically. In the introductory chapter is given a general view of London Botanic Gardens. In the second, third and fourth chapters the very important interrelationship between botanical gardens and pharmacy is clearly set forth. Most interesting to pharmacists is the history of the Physic Garden at Chelsea, London, established and maintained by the London Society of Apothecaries. It would appear that great interest was taken in this garden. It was variously maintained, by fees from the members of the society, private subscriptions, donations, grants, etc. Gardeners kept up the culture work, and a scientific demonstrator gave lectures on botany and directed the scientific work of the garden. At the present time the influence of said garden is largely educational, and under the auspices of the management of the garden, lectures and class demonstrations are given from time to time.

The work is a most valuable addition to the history of gardens of medicinal plants. S.

Government officers working on the smuggling case recently unearthed nearly 200 pounds of opium from a house near Gig Harbor, Portland, Oregon. The owner has disappeared, and the Sheriff's office has been given a description of him, with orders to arrest him if found. A government launch arrived from Seattle and is being used by the secret service men.

Personals

R. B. Christie has accepted a position with Serwe-Prien & Co. Mr. Christie is well-known to the drug trade, as he was with Kirk-Geary & Co. for several years.

The Economic Drug Company had their opening day Saturday. Dr. Munch says it was a grand success. The doctor is well known in the Mission.

Mrs. Bennett and Miss Nolan have bought the Knickerbocker store on Twenty-fourth and Alabama Streets. They are both well known in the drug business.

J. H. Boyson is spending a week around Hopland.

Dr. W. B. Kearney is making a trip East. He expects to be gone a year seeing the sights. Mr. Case has charge of the drug store.

Fred Lion has moved his store from Market Street to Post and Gough Streets, where he expects to do a fine business. Fred is the boy that can take care of them.

Dr. H. H. Hart is recovering from a bad spell of sickness.

C. H. Royer is the hardest-worked man in town getting things in shape at the Cooper Medical College.

J. W. Salter and daughter have returned from a trip to Ireland. They have been absent about a year. Good time reported.

Dr. Dan Wesenberg is in charge of the Pencovic Pharmacy on Fillmore and Ellis Streets.

Mr. Edwin W. Joy, for many years one of the leading druggists of this city, has given up the drug business, and is carrying now a complete stock of surgical supplies, trusses, crutches, belts, arch supporters, and has installed a plant for manufacturing deformity appliances, or anything in the surgical instrument line. He is now located at 2105 Pine Street.

Whilst we feel that the drug trade is sustaining a loss by the withdrawal of Mr. Joy from that line of the business, we wish him success in his undertaking, and trust that the druggists in the interior who may have calls for special appliances will communicate with him.

F. A. Arnette of San Pedro, formerly a clerk in a local drug house, was arrested on a charge of selling laudanum. An inspector visited the store and purchased the drug,

and later returned and purchased carbolic acid. The records of the board show that Arnette has no license.

Harry Lapadara's smiling face is seen behind Donlon's counter. Harry is an old-timer and Tom has made no mistake in him.

Otto Weihe is head prescription clerk at Lengfeld's, Sutter and Fillmore.

Fred Schoen of Point Richmond has bought the Rankin's store at Gridley. Success to Fred.

Frank Lockwood of Mill Valley is preparing to be one of the first to go duck hunting, and expects to kill every duck (tame or wild) that comes around.

Mr. H. A. Perrone, formerly with the Popular Pharmacy, is now in charge of the Dispensary of the San Francisco Polyclinic. He is making a lot of friends among the doctors.

Police Judge Gordon suspended punishment in the case of Mrs. Mary A. Woodcock, who has a drug store on Pike Street, Seattle, and who was charged with selling a bottle of brandy to Policeman Henry Hardin, without license or a prescription from a physician.

Mrs. Woodcock swore that she sold the liquor because Hardin said his sister was very ill and needed it.

A. Skinkle, proprietor of the Hardman drug store of Riverside, Cal., recently returned from San Francisco on a business trip.

The Red Cross drug store of Marshfield, Oregon, is making interior improvements.

M. P. Green of the Modern Pharmacy is having alterations made in his store building at No. 44 East Colorado Street, Pasadena, Cal.

Edgar M. Swasey, representing the Owl Drug Company of Oakland, has been in Hanford, Cal., a few days.

Ralph A. Pomasco, formerly with Fischer and Pellerano and also Thomas' Pharmacy, San Jose, has purchased the Pioneer Drug Store in Sunnyvale, where he will resume business.

H. L. Scherb of Los Angeles pleaded guilty to a charge of selling morphine without a license and was fined \$100.

J. B. Scott, the Salinas druggist, who has been ailing for several weeks, has left for a month's sojourn at Paraiso Springs.

Thomas McGuire, the Petaluma druggist, is to be married to Miss Louisa Brakely of New Jersey. Both are social favorites, and a host of friends wish them joy and success.

M. E. Conboy, manager of the Palace Pharmacy; Dr. Wales, Fred Wales, Father Wales and Arden Phillips, all of Globe, Arizona, have returned from a month's hunting and vacation trip to the White Mountains.

Harry M. Alden, formerly with the Nelden-Judson Drug Company of Salt Lake City, is now with The Cutter Laboratory, Berkeley, California, telling the trade about the goodness of their serums and vaccines.

W. H. Scarborough of St. John's, Oregon, has purchased the lease of the buildings and fixtures of Smith's Pharmacy at 111 South Jersey Street.

E. C. Mason of Birmingham, Ala., has arrived to accept a position in the A. C. Drug Store of Clifton, Arizona. He comes highly recommended as a druggist and has had considerable experience in his line.

L. L. Millner, who has been employed in the A. C. drug department of Clifton, Arizona, has resigned his position and has accepted employment with the Dunn and Loomis Company Drug Store on Chase Creek.

Mrs. Alice Laird Clopton, wife of Charles Clopton of the Braun Drug Company of Los Angeles, died recently at her home, 4621 Wisconsin Place. Mrs. Clopton was married within the year, and was buried in her wedding robes.

Mrs. Blanche Doughty of Kahlotus has purchased a site at Valleyford, Wash., and will erect a building there and carry a stock of drugs and notions.

L. L. Tallman of Walla Walla, Wash., has sold the stock and fixtures of his drug store, No. 2 Main Street, to N. M. Higgins who for the past three and a half years has been employed by Mr. Tallman as prescription clerk.

W. D. Bigelow, chief of the Department of Foods, Bureau of Chemistry in the Department of Agriculture at Washington, has been in Fresno County for a week or more conducting experiments in the sulphuring of fruit. He left for Washington by way of Berkeley, where he was in consultation with Professor Jaffa before continuing East.

John N. Zook has resigned as manager of the Ireland Pharmacy of Santa Fe, N. M., and the store will hereafter be conducted by James R. Carithers and Frank O. Brown, the latter having purchased the interest of W. N. Townsend.

The Pasadena Pharmacy, Johnson and Tirrell, of Pasadena, have purchased the Putnam and Morris stock of druggists' sundries.

Work has been commenced on a two-story building, 50 by 70 feet, built by Watson and Harned, to be occupied by Harned's Drug Store and by Kindorf's Grocery, Kalama, Wash.

E. P. Squire of Ukiah, Cal., has opened his drug store at 106 South State Street, opposite the Cecille Hotel.

Included in the cargo of the steamer Tremont, now on the way to Tacoma from Manila, is a shipment of 600 tons of copra consigned to large soap manufacturing plants in the East. The Tremont is also bringing a shipment of 8,000 bales of the new hemp crop from the Philippines.

A. H. Porter of Tillamore, Oregon, opened his new drug store. It is one of the neatest and most up-to-date drug stores in the city.

The following is clipped from the Los Angeles "Examiner": "A course in pharmacy is to be one of the new features of the evening educational work of the Young Men's Christian Association this winter. No attempt will be made to give a complete course in pharmacy, but merely a review and 'quiz' course for men preparing to pass the State Board examinations in January. The faculty of the College of Pharmacy of the University of Southern California has indorsed the project, and Arthur Maas, Ph. C., instructor in pharmacy at the university, will conduct the 'quiz' course at the association."

Jas. E. Irvine, one of the proprietors of the Palace Drug Store, Denver City, N. M., left Wednesday evening for Denver, Colo., to purchase his stock of Christmas goods.

Robert E. Allen of Hermiston, Oregon, has a complete stock of strictly new drugs, stationery and druggists' sundries.

C. D. Williamson of the Bisbee (Arizona) Drug Company, was married to Miss Edna L. Turten of New York City. We hope they will continue to be happy.

Samuel W. Dunaway, who has been identified with the Sun Drug Store of Riverside,

Cal., for six years, has purchased the R. L. Rumsey Pharmacy at El Centro, Cal.

Walter Finch, formerly manager of Wingood's Drug Store of Santa Ana, Cal., is now in the drug business in Bishop, Cal.

D. F. Everett, the druggist of Goldendale, Wash., has decided that his place of business is too small for his large stock of goods, so is having the store enlarged and newly equipped.

A. L. Cornwall of Phoenix, Arizona, has disposed of his drug store, next door to the Ford Hotel, to John P. Striegel of Waterloo, Iowa. Mr. Cornwall will leave for Los Angeles to join his family, who have now been in the coast city for a year and a half.

A pump has been put in the mineral well at Winchester, Cal., and the water comes out clear as crystal and is strongly impregnated with iron and magnesia.

S. P. Officer, manager of the Cimarron Drug and Stationery Company, was recently in Raton, N. M., on business.

The **Lion Drug Store** at 503 East Main Street, Stockton, was burglarized recently, and a large quantity of fountain pens, safety razors and pocket knives were stolen. The burglar evidently gained an entrance by means of a skeleton key. M. E. Lubosch, the proprietor, estimates the loss at \$300.

The **National Association** of Retail Druggists is opposed to the Sherman anti-trust law. Efforts will be made to have the law amended.

J. W. Smith owns one of the largest and finest drug stores in San Luis Obispo.

Jas. Stephenson of the Palmer Drug Company of Santa Cruz has been enjoying a visit at Los Angeles.

Dr. Wiley, specialist of the Department of Agriculture, says:

"I believe the pure food law will bring untold blessings on future generations, and we will all live to see man's term of life extended through its benefits.

"It is the one law that has made radical changes against which no suit to annul has been brought. This is due to the moral sentiment back of it. No business man would dare to try to have it set aside, because it would mean his commercial ruin."

The new drug store building at the corner of Nineteenth Avenue and East Main Street, Los Angeles, is to be ready for use by November 1, and druggist Thompson will occupy it.

Mr. Bertholf of Stockton recently purchased J. D. Gray's Model Drug Store on Main Street, just below El Dorado, retaining his drug store in Los Banos.

Druggist Hagerman of Hanford, Cal., is on the sick list, notwithstanding that he is among a fine bunch of remedies.

J. W. Johnson of the Adams-Johnson drug firm, Riverside, Cal., returned from Los Angeles, accompanied by Mrs. Johnson.

Assisted by H. H. Wende, prosecuting attorney, Constable N. E. Lawrence of Zillah, Washington, raided the drug store of Dr. McCracken Tuesday and discovered a quantity of beer and whisky, which will be used as evidence. Whether there was any violation of the liquor law is not stated.

Mr. Elton Fulmer is the chemist attached to the laboratory of the State college at Pullman, Washington, and is also inspector attached to the staff of the pure food inspector of the State.

Dr. J. R. Neto has concluded the purchase of Dr. Blake Franklin's hospital and drug store at Greenwood, Cal. Dr. Huntley, formerly of the French Hospital, San Francisco, but lately of Sunnyvale, will be in charge of the hospital and store.

A new building is being erected on the corner of Alpha Street and Raymond Avenue, San Francisco, which will be conducted as a drug store by Mr. Jennings for R. E. Dowdall of Glen Ellen.

The **Vallejo Drug Company** secured the contract to supply the cruiser Albany with a full line of medical supplies.

Pharmacist Samuel Englander has arrived from New York and reported for duty on Mare Island. He is being warmly welcomed back by hosts of friends.

The work of moving the University Pharmacy, one of the pioneer drug houses of Berkeley, from the former location at Shattuck Avenue and Addison Street to University and Shattuck Avenues, where a modern store has been completed, has been finished.

G. D. Johnson of the Pasadena Prescription Pharmacy was arrested for violating the liquor law.

J. P. Hatzfeld of Anaheim, Cal., has moved into his new establishment in the Strodthoff block.

The sale of so-called malt tonics at local soda fountains has been forbidden by the City Marshal of Long Beach, Cal.

John B. Starkey, at Fifth and D Streets,

San Diego, Cal., has been enlarging his storeroom, refitting and arranging things so as to more readily accommodate his growing business.

The Truedson Drug Company of Puyallup, Washington, has been incorporated by Tamine Truedson and Eric P. Truedson, with a capital of \$10,000.

Dr. R. S. Oakford, City Trustee of Long Beach and president of the State Board of Pharmacy, recently operated on for appendicitis, has so far recovered that he was removed from the hospital to his home.

The safe in the Owl Drug Store at Lakeport, Cal., was burglarized recently, the thief securing something more than \$60 in cash. He entered through a back window, which he pried open with an ax, and smashed the safe door with a hammer. Get a better safe.

Butter & Dore have opened a new, modernly equipped drug store in the Garden City Bank Building, San Jose, Cal.

Joe Shumam, a druggist from Alameda was recently the guest of Mr. and Mrs. Delmar, druggists of Antioch, Cal.

Edwards' Pharmacy, the leading drug store of Anderson, Cal., was sold to Dr. H. W. Heryford.

Joseph Ward, a druggist, formerly employed by the Western Wholesale Drug Company of Los Angeles, committed suicide at Phoenix, Arizona, by taking strychnine. He was a sufferer from rheumatism, and has a mother and sister in Los Angeles.

The Twentieth Century Drug Store, of Hampa, Idaho, Smith & McKnight, proprietors, will in future be under the name of Fred E. Smith, Mr. McKnight retiring.

Dr. McElroy has opened his new drug store at Sandy, Oregon.

Belden and Upp have moved into their new quarters in the Occidental block, Santa Rosa, Cal. They have a very attractive store and the furnishings are of the latest oak finish.

J. A. Kremis, a druggist from Albuquerque, has opened a drug store at Santa Fe, N. M., and will manage it in person. He will carry an extensive stock and has already installed over \$5,000 worth of druggists' sundries.

Miss Knickerbocker, for many years located at 2937 Twenty-fourth Street, has disposed of her business, to Mrs. Bennett and Miss Nolan. Under such able management, success is predicted for the new owners.

The Lowell Pharmacy, formerly conducted at 1421 Post Street, has been disposed of and discontinued at this location.

Mr. W. L. Bourns has added to his pharmaceutical possessions a new store, located at 150 East Street. This will be called the Anchor Pharmacy.

The Girard-McCormick Drug Company will shortly open a branch of their business at 656 Kearny Street, near Clay—a rapidly improving business center.

The Crown Drug Company is opening a new store at 958 Market Street. This will be under the able management of Mr. Gamble, for some years associated with the Gleason-Ruggles Drug Company and well known in local drug circles.

Mr. G. N. Hardwick, a recent arrival from the East, is preparing the building at Clayton and Waller Streets, formerly occupied by Argenti's Pharmacy, for a first-class drug store, which will receive his personal management.

The McPike Drug Company is soon to open for business at 117 East Street. Dr. McPike will hang out his sign at this location, and it is predicted that he will be kept busy.

Unexpected delays in completing fixtures have prevented the Langley and Michaels Company from moving to their new building as early as anticipated. They now definitely announce their removal on the 21st instant.

The Bear Drug Store, of Phoenix, Arizona, has installed a new sanitary soda fountain. The syrup jars are patented and said to be absolutely sanitary; the tumblers are thoroughly washed and dried each time they are used.

The pure milk agitation is receiving much attention in Portland just now. The Federal Milk Commission, composed of thirty-seven eminent specialists, lays down the following rules for securing pure milk. The dairies must be inspected regularly and the product frequently analyzed. The cows must be fed and watered by scientific process. Their stables must be kept absolutely clean and the milk must not be drawn in the stall where the cow has lain. The milkers are to be disinfected and all vessels chemically clean, nor should the temperature before delivery ever rise above 50 degrees.

Some of these rules and regulations are absurd because they cannot be put in operation.

The Gridley Pharmacy, conducted by C. M. Rankin until the time of his death, since which time his widow has conducted same, has now been sold to Fred Schoen of Point Richmond.

The Golden Gate branch postoffice, known as sub-station No. 14, located in the drug store of F. S. Klinkner at No. 5902 San Pablo Avenue, was robbed by a bold sneak thief, who snatched \$230.50, which had been done up in a packet for transmission to the main postoffice, and escaped.

Dr. W. H. Prittie and Bernard Lustig, two local druggists of Long Beach, who are under indictment for having violated the liquor ordinance, are both seriously ill and may not survive to appear for trial on the charges pending against them.

The recent pure food exhibits and fairs held in Portland and Seattle are said to have been a brilliant success in every way.

The holographic will of James R. Gates, the wholesale druggist of Sansome Street, San Francisco, who died on September 7 at the age of 68 years, was filed for probate recently. The size of the estate is not indicated by the will or by the accompanying application of Henry Michaels, executor for letters of administration, but is said to be in the neighborhood of \$200,000.

Eugene G. Farmer, of Santa Rosa, has moved into his new drug store at the corner of Fourth and D Streets. Mr. Farmer was a good student at the College of Pharmacy and is a first-class pharmacist.

A. L. Raney, the druggist of Hanford, Cal., who, with his family, has been sojourning in the Giant Forest, has returned.

The case against the Goodwin Pharmacal Company and H. N. Stone Drug Company, of San Pedro, Cal., has been heard before Justice Stieglitz. Charges are upon technical infringements of the new law, and the prosecution is urged by the State department. Senator Savage is attorney for the defendants. The cases were continued until October 16th, 17th and 18th. Inspector Lewis, who is said to have preferred the charges against the druggists, acted, it seems, very "small." He or his assistant rushed breathlessly into the Stone drug store and beseeched the clerk to "Please hurry; I want laudanum for my sick horse."

Such officiousness should be forcibly suppressed, preferably with a heavy boot.

A case not unlike the above occurred in

Berkeley, where W. J. Bradley, a drug clerk, was fined \$100 for violating the liquor law. In this case officer Wikoff acted the sneak to secure evidence.

The Cave Drug Store, of Salt Lake City, Utah, suffered a loss of about \$25,000 by fire on September 7th. This store was one of the best equipped in the city.

Fire Extinguishing Powder

The following formulas are gleaned from various sources:

Bucher's Fire Extinguishing Powder—Powdered sulphur, 30 parts; purified saltpeter, 60 parts, and a small quantity of coke and bole.

Munich Fire Extinguishing Powder—Common salt, 43 parts; alum, 19.5 parts; Glauber salt, 5.1 parts; soda, 3.5 parts; waterglass, 22.3 parts.

Fire Extinguishing Powder—(1) Eight parts common salt, 6 parts sodium bicarbonate, 2 parts Glauber salt, 2 parts calcium chloride, 2 parts sodium silicate. (2) Sixty parts common salt, 60 parts sal ammoniac, 80 parts sodium bicarbonate. (3) One hundred parts sal ammoniac, 60 parts sodium sulphate, 40 parts sodium bicarbonate.—Paint, Oil and Drug Review.

A big corporation resembles a big machine. It operates like a machine and exhibits about as much intelligence as a machine. The rank and file in the corporation may be compared to the wheels, pulleys, belts, bolts, nails, etc., of the machine. When worn out, they are cast aside and replaced by others. The operators of a corporation show as much feeling for the men under their employ as the operators of the machine show for the parts composing the machine. Moral—Avoid, if possible, being made a part of a machine or an "individuel" in a corporation.

Drug News



Val Schmidt's new pharmacy, a picture of which is presented above, was recently reopened on the old site, southwest corner Polk and Jackson Streets. This store deserves more than a passing notice from the fact that Mr. Schmidt has combined in its construction beauty, art and convenience, besides introducing several new features. The store is 21 feet wide by 45 feet deep. The cases and shelving are 9½ feet high, built of mahogany throughout, with satin finish. The floor is of tessellated Italian white marble, with black diamonds. There are 350 drawers, without the usual unsightly drawer pulls or knobs (a new feature), and their labels are strips of gilded zinc fastened to the fronts. There are 60 feet of counterbases, all mahogany and plate-glass, with 8-inch white marble bases. The space behind these bases is utilized by drawers in the rear for surplus stock (a new feature). The marble-covered prescription counter is 14 feet long, and appeals to dispensers of prescriptions as about perfect. All glass doors and cup-

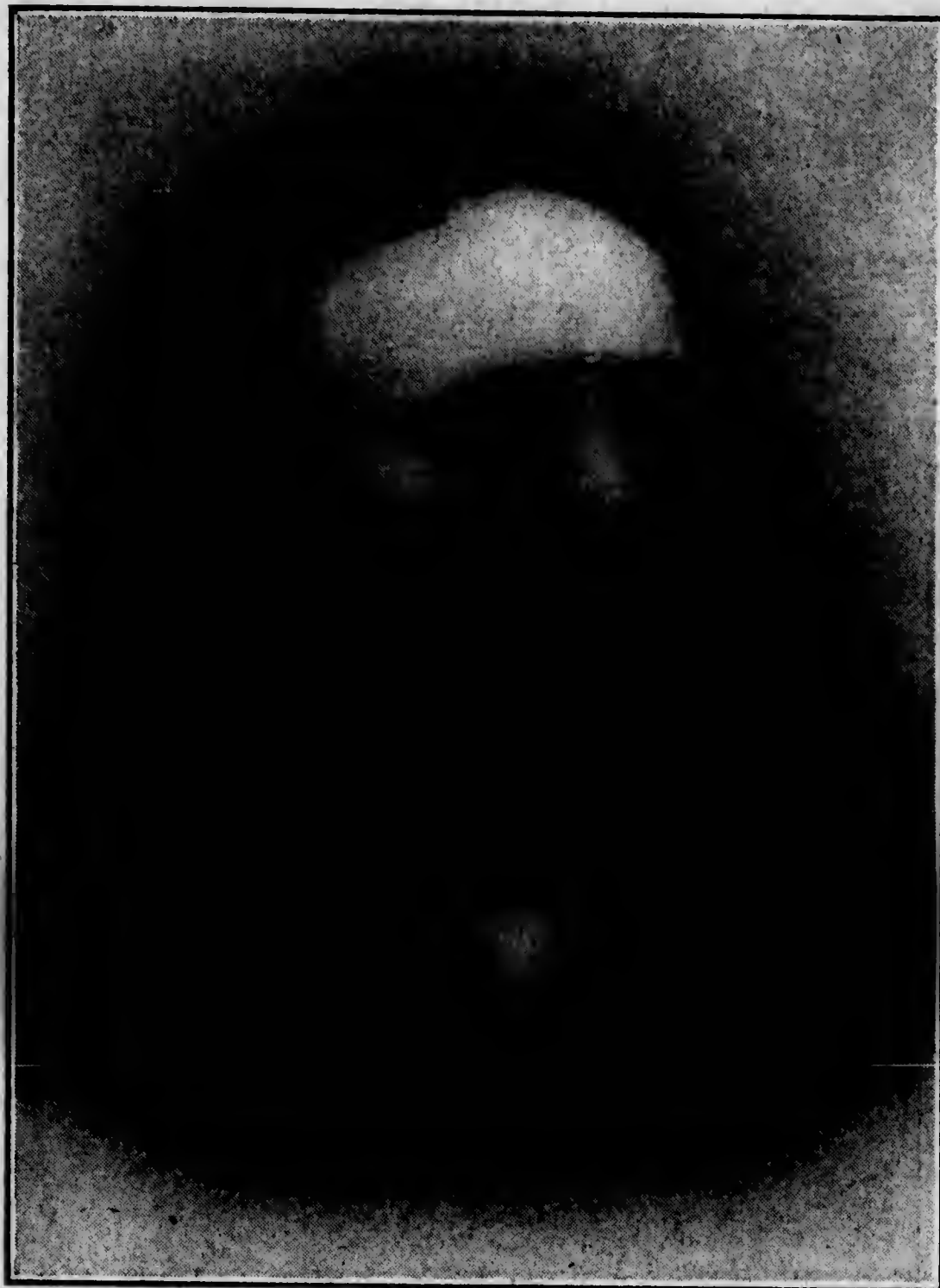
boards are running on ball-bearing gear. There are a number of plate-glass mirrors, while the coloring of the walls and ceiling present a striking and harmonious **tout ensemble**, impressing the visitor as a masterpiece of elegant simplicity.

The entire work was done in this city by Wm. Batemann.

Valentine Schmidt, whose photo is shown above and whose new store on Polk Street is described in the accompanying sketch, is one of San Francisco's best and best-known pharmacists. After serving an apprenticeship of five years in the store of J. Roemheld, the predecessor of Gale & Blocki of Chicago, he came to San Francisco in 1860 with a good pharmaceutical training. Here he entered the employ of Wakelee & Co., where he remained fifteen years, first as head clerk and afterwards as manager. In 1880 he opened a store with A. H. Smith at the corner of Polk and Pine Streets, moving shortly afterwards to the corner of Polk and Bush Streets. Here they built up a fine business. In 1885 he

sold out to his partner and opened a new store at 338 Kearny Street, removing after two years to the corner of Polk and Jackson Streets. In the latter location he built up one of the best, nicest, cleanest, most strictly pharmaceutical businesses in the city. Desiring to relieve himself of some of the hard work of the pharmacy, he, a short time before the fire, incorporated his business, associating with himself his son, Albert Schmidt, and Solomon Sharp, both graduates of the California College of Pharmacy, and good business men. The fire swept away the store and many beautiful homes, some of them palaces, nearby and from which much of the trade of the concern had come. After the fire, Mr. Schmidt took time to get well rested and to estimate the prospects of that part of the city. After a while the store was rebuilt, and the firm determined to resume business at the old stand, and there they are today. They report that trade is good, and many of the old customers, though sadly scattered by the fire, are coming back, glad to find the old hands in a new and far more elegant store, thoroughly up to date in equipment, as the proprietors are in their business methods.

Mr. Schmidt is one of the young men of San Francisco, i. e., he feels young, acts young, and is young in most things. Only when he recalls the fact that he was born in the year 1840 does he excuse his friends for calling his youthfulness in question.



VAL SCHMIDT

He enjoys the respect and esteem of a host of acquaintances formed during a business career of nearly half a century, always marked by integrity and high principle.

Mr. Schmidt has been identified with the California College of Pharmacy from its origin, and for many years has served it as one of its Board of Directors.

COFFIN-REDINGTON COMPANY INCORPORATE

The well-known firm who have been doing business in this city since 1850, under the name of Redington & Co., and in New York since 1859, under the name of Coffin, Redington & Co., have just incorporated under the laws of the State of New York under the name of Coffin-Redington Company of San Francisco and New York.

The change in name indicates no change in the personnel of the firm, or

in the progressive character of the house. It is made to better secure the permanence of their business, a course now quite generally adopted by large concerns. With their capital of \$600,000, and the prestige which their long and successful career has given them, they are justified in expecting as extensive and profitable a business in the future as they have had in the past.

Boxes, Labels

Cartons, Etc.

Order by Mail Now

From

F. C. FELTER

228 Lumber Exchange Building

Portland, Oregon

Representing Pictorial Printing Co., Aurora and Chicago, Ill.

Fred M. Clark, Druggist and Mayor of Ely, Nevada

Another addition to the record of prosperity of the Silver State is evidenced by the progress of Mr. F. M. Clark, of Ely, Nevada. Arriving at Taylor, a small town near Ely, in 1885, he soon found employment in the general merchandise store of J. F. Cupid, as bookkeeper, which position he occupied for three years, during which time he saved money enough to purchase a half-interest in a small drug store. In 1890 a branch store was established at Ely in a room 14 by 18 feet. In 1893 he purchased the interest of his partner. At this time

Ely had a population of but three hundred; today it has six thousand people within its limits, and the prospects for further increase are very promising. It is expected that Ely will rival Butte, Montana, within the next two years. Mr. Clark was elected to the legislature in 1894, receiving the largest vote of any candidate in the county. In 1897 he was elected mayor of Ely.

The store of Mr. Clark has recently been remodeled, making it up to date in all particulars, and the stock now carried will run well up into the thousands. A branch store is now being established at McGill—a smelter town, fourteen miles from Ely, where the Gugenheims have large copper interests.



STORE OF FRED. M. CLARK, ELY, NEVADA

Addresses Wanted by the California State Board of Pharmacy

Any person knowing the addresses of any of these persons will confer a favor by sending the same to Chas. B. Whilden, 925 Golden Gate Avenue, San Francisco.

Licentiates

Anderson, Paul S.	Becker, O.
Atkinson, John J.	Bennett, T. E.
Ayers, Walter W.	Benz, Wm. M.
Barber, R. D.	Berger, C. G.
Batt, Benno	Blackburn, F. J.
Barnickel, Anna	Blackburn, Miss H. L.
Barnickel, B.	Blair, J. D.
Baumeister, E. E.	Blankinship, F.
Bearcroft, J. C.	Bogel, E. J.

Bogy, John Louis
Bologna, V.
Booth, A. R.
Bowen, P. M.
Bowman, S. L.
Brady, H. T. A.
Braun, P. A.
Brewer, T. R.
Bristol, H. R.
Brown, J. L.
Bryan, W. J.
Burtwell, H. J.
Byler, C. M.
Cahn, N. A.
Case, C. A.
Chase, C. A.
Christal, Ch. H.

Clifford, Jesse
Colpe, C. H.
Connolly, T. W.
Cory, I. H.
Cross, Wm. A.
Curtis, Geo. F.
Danzig, Phineas
Davis, M.
Davis, W. J.
Davis, J. W.
Davis, W. K.
Dean, J. B.
De Barbieri, J.
Des Marais, L. N.
De War, R. W.
De Witt, J. W.
Dignan, M. H.

- Dixon, E. T.
 Dorr, E. W.
 Dowle, Jas. Thos.
 Douglas, R. A.
 Driver, C. E.
 Eastman, E. J.
 Edgar, A. R.
 Evans, Will C.
 Evers, Conrad
 Ewing, J. E.
 Fabra, J. A. X.
 Fasig, H. B.
 Ferre, M.
 Fegan, Al. F.
 Foley, R. E.
 Franklin, J. H.
 Friend, Edmund
 Fryer, C.
 Gallwey, J. A.
 Gardner, Josiah
 Gebhart, E. M.
 Green, C. W.
 Gregory, E. B.
 Grier, R. S.
 Groover, J. F.
 Groton, W. D.
 Groton, J. L.
 Grunewald, R.
 Haderle, J. A.
 Haeberle, C. J.
 Haggard, S. B.
 Haight, L. M.
 Hale, Elvin M.
 Hall, Clara L.
 Hammerguest, Chas. E.
 Hanlon, E. R.
 Hannum, W. C.
 Hardy, L. E.
 Hardy, Harry W.
 Hedrick, W. M.
 Heizer, Calvin B.
 Herriott, D.
 Higgins, Chas. C.
 Holt, A. E.
 Hooker, B. A.
 Hudgin, E. L.
 Hunt, D. W.
 Hunter, H. H.
 Hyde W. T.
 Illia, J. D.
 Irvine, D. W.
 Ives, H. L.
 Johnston, W. Murray
 Jones, H. C.
 Jones, J. F.
 Kahler, E.
 Kent, R. W.
 Kilbourn, C. M.
 Kirkham, W. A.
 Klahr, S. S.
 Klueter, H.
 Kroh, Wm.
 Kurtz, A. M.
 Lafrance, Demas
 Large, C. F.
 Leibrich, E. F.
 Levy, G. S.
 Lund, C. W.
 Lutz, W. G.
 Mack, W. L.
 Mahony, J. J.
 Mardis, B. A.
 Mathews, E. J.
 Mayer, Peter F.
 McAlone, M. L.
 McColl, E. R.
 McCarthy, F. J. T.
 McClintock, T. B.
 McDonald, J. A.
 McDonald, Alex B.
 McFadden, J. A.
 McKean, W. G.
 McKenney, A. C.
 McLean, J. Luther
 Mendel, L. C.
 Messers, H. F.
 Miller, Wm.
 Miller, Jas. Augustus
 Mills, J. M.
 Mitchell, J. S.
 Mitchell, H. W.
 Moltzen, W. F. A.
 Montgomery, P. C.
 Moody, R. F.
 Muller, W. M.
 Muse, A. E.
 Newman, R. J.
 Newman, F. H.
 Nickum, J. W.
 Nightingale, J. B.
 Noble, E.
 Nolan, Kath. M.
 Nonne, Walter
 O'Donnell, Geo. H.
 Olds, G. L.
 Ordway, Frank L.
 Oswill, Geo. McC.
 Otto, W. H.
 Parker, J.
 Passer, Wm. T.
 Pieffer, W. C.
 Phelan, C. E.
 Porter, Nathan A.
 Prewett, S. W.
 Pretty, S. Byron
 Price, Chas. M.
 Prior, Tony
 Pryor, W. A.
 Ray, F. E.
 Raymond, Alex.
 Redmond, Chas. H.
 Reed, J. D.
 Richards, Louis N.
 Richards, James
 Riley, T. J.
 Robertson, J. Elgin
 Root, E. S. S.
 Rose, H. J.
 Rosenfeld, E. A.
 Rosson, C. T.
 Ruffin, D. T.
 Rust, Madge C.
 Rutledge, W.
 Sargent, Beverly N.
 Sanborn, A. T.
 Saunders, Z. W.
 Schmidt, A. O.
 Schuldt, H. F.
 Scott, E. Lyle
 Selzer, M. J. E.
 Shapiro, Isaac S.
 Simpson, Wm.
 Sloan, Geo. B.
 Smith, Mrs. V. P.
 Smith, H. L.
 Snowden, R. R.
 Steinman, G.
 Stocking, Roy M.
 Stone, Jas. E.
 Stroud, J. R.
 Sulzberger, T. L.
 Tholl, Paul
 Thoin, E. J.
 Thomas, John W.
 Tobin, J. H.
 Torrence, J. S.
 Tornee, Ditler W.
 Towne, L. B.
 Towson, E.
 Ulman, F. G.
 Upp, W. A.
 Van Fossen, L.
 Vansant, R. H.
 Villain, A. J.
 Volkmann, M. F.
 Von Rodesky, C. W. R.
 Wagner, John B.
 Wall, P.
 Walters, A. R.
 Walter, Albert C.
 Washington, H.
 Watt, G.
 Wentworth, C. O.
 Welte, L.

White, J. W.
 White, Daniel W.
 Wiley, G. A.
 Williams, E.
 Wilson, G. O.
 Wood, J. W.
 Wood, W. H.
 Worland, H. C.
 Wrede, T.
 Yonge, S. G.
 Zumwalt, F. H.

Assistants

Abrams, Chas. Wallace
 Alford, C. C.
 Allen, G. S.
 Armstrong, Nellie A.
 Barber, Dora L.
 Birch, F. C.
 Bird, H.
 Blaisdell, D. M.
 Bork, A. W.
 Brogden, Alvin B.
 Brooks, W. A.
 Brown, S. M.
 Brown, W. C.
 Buswell, H. T.
 Cahill, Michael
 Calahan, Chas.
 Cannon, W. G.
 Carr, L. T.
 Carstensen, C. L.
 Cereghino, Adeline A.
 Clark, H. L.
 Clarke, W. H.
 Condon, C. E.
 Cooper, C. J.
 Crane, W. S.
 Creason, J. E.
 Croft, Clarence
 DeGrancourt, F.
 Dickson, R. B.
 Dixon, G. A.
 Dodson, L. N.
 Drew, Arthur W.
 Elsner, F. R.
 Evans, S. G.
 Ewing, D. A.
 Fessenden, A.
 Finch, C. J. S.
 Folks, J. M.

Fossum, Carl J.
 Galehouse, F. C.
 Grier, R. M.
 Hault, A. L.
 Hardy, C. W.
 Harper, T. H.
 Haworth, C. C.
 Hawley, A. G.
 Hawley, R. S.
 Harner, J. W.
 Helms, H. J.
 Henderson, D. T.
 Hesser, F. C.
 Higgins, Margaret C.
 Hill, C. E.
 Hines, L. B.
 Hornung, Hans A. (John)
 Hourigan, Geo.
 Howe, R. C.
 Hume, F. E.
 Hunter, W. W.
 Jansen, N.
 Jones, P. E.
 Johnson, L. W.
 Johnson, Etta
 Johnson, H. J.
 Johnston, A. E.
 Jordan, Curtis O.
 Keefer, M. A.
 Kelly, James B.
 Keppel, V. E.
 Lauck, G. A.
 LaVerne, D. C.
 Leman, Adolph W.
 Lindley, Raymond Glenn
 Lindstrom, Carl
 MacSwiney, E.
 Mager, Hans A.
 Mallery, J. H.
 Manchester, F. C.
 McKee, J.
 McKee, Barbara E.
 McNair, A. J.
 Megerle, H. C.
 Meaker, A. E., Jr.
 Meier, R. V.
 Menery, H. H.
 Mitchell, Victoria
 Mooney, Joseph
 Monaco, Frank
 Morehead, H. H.

Morris, L. E.
 Naftzger, Fred E.
 Ott, H. G.
 Painter, G. L.
 Palmer, Bertha W.
 Pfender, G. W.
 Phillips, W. J.
 Pierson, Walter E.
 Plymire, D. B.
 Potter, Q. M.
 Price, Geo. G.
 Pryor, J. E.
 Quinlon, E. M.
 Ringwald, A. E.
 Roach, S.
 Rolfs, Geo.
 Rousset, John L.
 Russell, E. B.
 Schilling, Chas. A.
 Shearer, J. L.
 Sheckler, J. D.
 Shelton, R. E.
 Siegner, G.
 Siordia, Emilio
 Smith, H. R.
 Snoke, J. W.
 Sprague, K. E.
 Spring, Mabel I.
 Sproule, W. K.
 Stapleton, E. J., Jr.
 Stapleton, E. D.
 Sullivan, W. J.
 Thompson, P. H.
 Tuttle, Jos. W.
 Vanderbeck, H. D.
 Van Fossen, F. B.
 Vaughan, Walter E.
 Vollmer, J. A.
 Wade, L. T.
 Wall, W. C.
 Ware, J. S.
 Wengenroth, Fred W.
 Wenger, F. B.
 West, E. F.
 Whitfield, K. S.
 Wilkens, L.
 Wines, W. F.
 Woolston, S.
 Wuensche, C.
 Yost, J. A.
 Young, Jas. R.

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

THE MARKET

Price changes since our last publication exhibit but few features of special interest.

We note a further decline in Citric Acid and Camphor, and an advance of 1 cent per pound in Glycerin and \$2 per ounce in Heroin. Some of the more prominent fluctuations are noted below:

Advanced.	Declined.
Balm Gilead	Balsam Peru
Bergamot Oil	Bluestone
Cocoa Butter	Boric Acid
Caffein	Ether
Cascara	Peppermint Oil
Cod Liver Oil	Roman Chamomiles
Dandelion Root	Saffron American
Glycerin	
Guarana	
Harlem Oil	
Heroin	
Lemon Oil	
Linseed Oil	
Manna	
Sassafras Bark	
Soap Bark	
Thymol	

ACETANILID. 1-lb. cart. incl.....lb	36
Powd., 1-lb. cart. incl.....lb	36
ACETONE. Technical.....lb	45
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....lb	20
5-lb bottles, ".....lb	15
Glacial, M. C. W. lb	44
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure, Merck's.....oz	14
Arsenous, Lumps, Pure, Merck's.....oz	8
Arsenous, Powd., Pure, Merck's.....oz	8
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	57
Benzoic, from Toluol, M. C. W.....oz	13
Benzoic, True from Benzoin, Merck's..lb	35-1 50
Benzoic, from Toluene, Merck's, 1-oz cartons	13
Benzoic, from Toluene, Merck's.....lb	55-65
Boracic	16-18
Boracic, powd., M. C. W.....lb	19
Boracic, im. powd., C. P., 1-lb cart. incl..lb	27
Boracic, Squibb's, 1-lb bottle.....lb	45
Boric, H. P., Merck's.....lb	28
Boric, powd., pure, Merck's.....lb	20
Boric, Impalp., powd., Merck's.....lb	28
Butyric, 100%, Merck's.....oz	27
Butyric, H. P. lb	2 14
Cacodylic, Merck's ½	4 00
Camphoric, Merck's	49
Carbolic, Calvert's No. 1.....lb	2 00

Carbolic, Calvert's No. 2.....lb	1 50
Carbolic, 1-lb tin, M.C.W., gilt label....lb	28
Carbolic, M.C.W., 5-lb can, gilt label....lb	25
Carbolic, M.C.W., 10-lb can, gilt label...lb	24
Carbolic, M.C.W., 25-lb can, gilt label...lb	22
Carbolic, Loose, crys., Merck's.....lb	70
Carbolic, Silver Label, Merck's.....lb	28
Carbolic, Solution, 1-lb. bot.....doz	2 50
Carbolic, Crude	40-50
Chromic, 1-oz vials	15
Chrysophanic, true, M.C.W., 1-oz vials..oz	45
Cinnamic, H. P., Merck's	39
Citric, crys	62-65
Gallic, 1-oz cartons, Merck's	11
Gallic	70
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34
Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10
Hydriodic (Sp. gr. 1.50), Merck's.....oz	42
Hydriodic (Sp. gr. 1.70), Merck's.....oz	52
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39
Hydrocyanic, U. S. P., Scheele's.....oz	35
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30
Hydrofluoric, ½s, g. p. bots. incl. " ..lb	1 80
Hydrofluoric, ¼s, g. p. bots. incl. " ..lb	2 25
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19
Lactic, conc., 1-oz vials, M. C. W.....oz	12
Lactic, conc., 1s, Merck's.....lb	79
Lactic, dilute, 1-oz vials, M. C. W.....oz	8
Muriatic, carboys	3 ¼
Muriatic, 6-lb bots.....each	75
Muriatic, C. P., 6-lb bots.....lb	22
Muriatic, C. P., 1-lb bots.....lb	38
Nitric, carboys. lb	8
Nitric, 7-lb bots.....ea	1 10
Nitric, C. P., 7-lb bots.....lb	22
Nitric, 1-lb bots. lb	40
Nitro-Muriatic	40
Nitrous, fuming	65
Oxalic.	14-16
Oxalic, chem. pure, M. C. W.....lb	30
Phosphoric, glacial, Merck's	64
Phosphoric, syrupy (85%)	55
Phosphoric, diluted, M. C. W.....lb	25
Phosphoric, M. C. W., U. S. P., 50%..lb	40
Phosphoric, glacial, 1-oz vials.....oz	11
Phosphoric, glacial, 1s, M. C. W.....lb	64
Picric	60-70
Pyrogallic, Resublimated, Merck's.....oz	27
Pyrogallic, Merck's, 1-lb cans.....lb	2 35
Pyrogallic, Merck's, ½-lb cans.....lb	2 45
Pyrogallic, Merck's, ¼-lb cans.....lb	2 55
Pyrogallic, Schering's	2 50
Pyrogallic, Schering's	½-lb 2 60
Pyrogallic, Schering's	¼-lb 2 70
Pyrogallic, Schering's, oz. vials.....oz	28
Pyroligneous	40
Salicylic, Merck's, 1-lb cartons....lb	46
Salicylic, from Oil Wintergreen, Merck's.oz	44
Salicylic, Amorph., Merck's	46

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Salicylic, from Wintergreen, Merck's....oz	44	Bromide, 1-oz vials, M. C. W.....oz	10
Succinic, Merck's, oz bottles.....oz	1 80	Bromide, M. C. W. lb	46
Sulphuric, Aromatic lb	75	Carbonate. lb	15-18
Sulphuric, carboys lb	2-2 1/4	Carbonate, powdered lb	20
Sulphuric, 9-lb bottles each	1 00	Chloride, see "Muriate."	
Sulphuric, C. P., 9-lb. bottles.....lb	22	Citrate, 1-oz. vials, M. C. W.....oz	15
Sulphuric, C. P., 1-lb bottles.....lb	38	Hypophosphite, 1-oz vials, M. C. W.....oz	21
Sulphurous, U. S. P., solution.....lb	25	Hypophosphite, M. C. W. lb	1 70
Tannic. lb	85-90	Iodide, 1-oz. vials, M. C. W.....oz	38
Tannic, H. P., Merck's lb	1 71	Muriate, lump. lb	14-16
Tartaric, crystallized lb	39-45	Muriate, gran. lb	10-12
Tartaric, powdered lb	39-45	Muriate, gran., pure, 1-lb cartons.....lb	20
Tri-chlor-acetic, Merck's oz	32	Muriate, powdered, pure.....lb	19
Valerianic, Merck's oz	20	Muriate, Po lb	17
ACONITINE. Amorphous, Merck's.....dr	1 40	Muriate, Po., Squibb's lb	35
Cryst., Merck's dr	1 40	Nitrate, H. P., Merck's lb	44
ADAPES LANAE. B. P. lb	35	Nitrate, cryst., refined lb	37
AGARIC. White. lb	45	Oxalate, H. P., Merck's.....lb	85
ALBOLNE. lb	50	Phosphate lb	84
5-lbs lb	45	Salicylate, Merck's lb	1 10
Liquid lb	50	Salicylate, Merck's oz	13
Liquid, 5-lbs lb	45	Succinate oz	1 90
AGURIN oz	1 70	Sulphate, com'l lb	12
ALBUMEN. Egg. lb	1 45	Sulphate, C. P., Merck's lb	29
ALCOHOL. Absolute. qt	1 00	Sulpho Cyanate, pure oz	10
94%, 10-gal. case gal	2 91	Valerianate, cryst., 1-oz vials.....oz	24
94%, 5-gal. case gal	2 96	Valerianate, cryst. lb	1 75
Denatured, 5-gal. can.....gal	70	AMMONOL oz	1 05
Wood, 5-gal. case. gal	75	AMYL. Acetate lb	79
Wood, Columbian Spirits, 5 gal. in case.gal	1 02	Butyrate, M. C. W. oz	30
Wood, Columbian Spirits, barrels.....gal	85	Nitrite, Merck's oz	29
Wood, Columbian Spirits, 1/2 barrels....gal	95	Valerianate, M. C. W. lb	2 59
Cologne Spirits, 5 cents advance over price of Alcohol.		ANNATTO. Roll lb	60
ALDEHYDE. Conct., Merck's oz	25	ANODYNE. Hoffman's, 1-lb bottle.....lb	75
ALLSPICE. lb	17	ANTHRASOL oz	60
Powdered lb	20	ANTIFEBRIN. Merck's oz	17
ALMOND MEAL. lb	45	ANTI-KAMNIA and its combinations.....oz	1 00
ALMONDS. Bitter, shelled. lb	45	10-oz lots for \$9.25; 25-oz for \$22.80	
Sweet, shelled. lb	45	Tablets, Vest Pocket doz	1 75
ALOIN. 1-oz vials oz	15	Tablets, Vest Pocket, 1 gross, 5% off.	
ALUM. Ammonio-Ferric, M. C. W. lb	34	ANTIMONY. Black, powdered, pure.,....lb	15
Chrome lb	21	Black, powdered, commercial lb	10
Burnt lb	15	Chloride, cryst., 1-oz vials.....oz	22
Ground lb	7-9	Chloride, sol. (Butter of) lb	39
Lump. lb	5-8	Oxysulphuret (Kermes Mineral) lb	1 00
Powdered. lb	7-9	Potassium Tartrate, powdered lb	45
ALUMINUM. Aceto-Tartrate, M. C. W...oz	20	Sulphuret, precipitated lb	92
Bromide, M. C. W.....oz	29	ANTINOSINE oz	2 10
Chloride, M. C. W.....lb	79	ANTIPYRIN. Knorr's oz	35
Chloride, M. C. W.....oz	14	New oz	25
Hydrated, pure, M. C. W.....lb	79	APIOL. Fluid Green, Merck's.....oz	37
Metallic, M. C. W.....oz	17	APOLSYIN. S. & G. oz	65
Sulphate, pure, M. C. W.....lb	25-29	APOMORPHINE. Hydrochlor. A m o r.,	
Sulphate, H. P., Merck's lb	59	Merck's, 1/8-oz vial oz	3 50
ALUMNOL oz	60	Mur. cryst. oz	8 50
AMIDOL. 1-oz. can oz	65	Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	4 00
AMMONIA. Spirits of lb	75	ARISTOL oz	1 80
Spirits of, aromatic lb	75	ARGOLS. Red lb	15
Aqua, 26 deg., 1-lb. bot.....lb	20	Red, powdered lb	20
Aqua, 26 deg., 4-lb bot.....lb	16	ARGYROL oz	1 50
Aqua, 26 deg., 5 gal. can.....lb	11	ARROWROOT. St. Vincent.....lb	18-20
Aqua, 26 deg., carboy.....lb	9 1/2	Taylor's Bermuda, 1/4s and 1/2s.....lb	35
Aqua, Washing, 5-gal. can.....gal	50	Taylor's Bermuda, bulk lb	35
AMMONIUM. Acetate, cryst., M. C. W...oz	14	ARSENIC. Bromide, 1-oz vials, M. C. W..oz	27
Arseniate, 1-oz vials, M. C. W.....oz	22	Chloride, sol., M. C. W.....lb	30
Benzoate, 1-oz vials, M. C. W.....oz	14	Iodide, 1-oz vials, M. C. W.....oz	44
Benzoate, M. C. W. lb	1 14	Metallic lb	45
Bichromate, 1-oz vials, M. C. W.....oz	14	Red, powdered lb	15
		Solution (Donovan's) lb	40

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Solution (Fowler's)	lb	30	Dogwood, pressed, 1-lb.....	lb	20
Sulphured, red powdered	lb	33	Dogwood, powdered	lb	25
Sulphured, yellow powdered	lb	33	Elder, pressed, 1-lb.....	lb	35
White, lump	lb	30	Elm, select, slabs.	lb	30
White, powdered, commercial.....	lb	18	Elm, ground, bulk	lb	30
Yellow (orpiment)	lb	35	Elm, powdered	lb	30
ASBESTOS. Fibrous, gro.....	lb	20	Elm, powdered, ¼s.....	lb	30
ASPARAGIN. ½-oz vials	oz	1 50	Elm, powdered, ⅓s.....	lb	35
ASPIRIN	oz	43	Elm, powdered, ozs.....	lb	40
ATROPIA. Pure, ⅛-oz. vials, Merck's....	oz	7 35	Hemlock, pressed, 1-lb.	lb	25
Sulphate, ⅛-oz vials, Merck's.....	oz	6 25	Hemlock, powdered.	lb	30
BALSAM. Copaiba, 8-lb can.....	lb	1 10	Jamaica Dogwood, pressed, 1-lb.....	lb	35
Copaiba, 5-lb bottle.....	lb	1 15	Jamaica Dogwood, powdered, 1-lb.....	lb	35
Copaiba, 1-lb bottle	lb	1 25	Mezereon, pressed, 1-lb.....	lb	28
Copaiba, solidified	lb	1 25	Oak, red, pressed, 1-lb.....	lb	22
Fir, Canada	lb	75-80	Oak, white, powdered.	lb	22
Fir, Oregon.	lb	50-55	Oak, white, pressed, 1-lb.....	lb	22
Gurgun	lb	40	Poplar, white, powdered, 1-lb.....	lb	25
Peru	lb	3 25	Poplar, white, pressed, 1-lb.	lb	25
Sulphur	lb	60	Poplar, yellow, pressed, 1-lb.....	lb	25
Tolu	lb	75	Prickly Ash, powdered	lb	40
BARIUM. Acetate, 1-oz vials, M. C. W....	oz	16	Prickly Ash, pressed, 1-lb.....	lb	33
Carbonate, M. C. W.....	lb	37	Quebracho	lb	35
Carbonate, precip., Merck's	lb	30	Sassafras.	lb	28
Chloride, chemically pure, M. C. W.....	lb	38	Sassafras, powdered	lb	25
Chloride, H. P., cryst., Merck's.....	lb	38	Simaruba	lb	50
Nitrate, M. C. W.	lb	23	Soap Tree	lb	10-12
Nitrate, H. P., cryst., Merck's.....	lb	37	Soap Tree, ground	lb	15
Sulphide, commercial, Merck's.....	lb	43	Soap Tree, powdered.	lb	15
Sulphide, pure, Merck's	lb	53	Sumac, pressed, 1-lb.....	lb	25
Sulphate, M. C. W.	lb	13	Tamarac, pressed, 1-lb.	lb	25
BARK. Alder, black, pressed, 1-lb.....	lb	25	Wahoo Root, pressed, 1-lb.....	lb	33
Alder, red or tag, pressed, 1-lb.....	lb	24	Wild Cherry.	lb	16
Angostura	lb	30	Wild Cherry, ground.	lb	18
Ash, black, pressed, 1-lb.....	lb	20	Wild Cherry, powdered	lb	20
Ash, mountain, pressed, 1-lb.....	lb	24	BAY RUM. Domestic	gal	2 25
Ash, white, pressed, 1-lb.....	lb	25	Imported	gal	3 00
Barberry, pressed, 1-lb.....	lb	30	BEANS. Calabar.	lb	40
Barberry, powdered	lb	35	Tonka, Angostura	lb	1 35
Bayberry, pressed, 1-lb.	lb	25	Vanilla, short, true Mexican.....	lb	8 50
Bayberry, powdered.	lb	30	Vanilla, long, true Mexican.....	lb	9 50
Birch, pressed, 1-lb.....	lb	24	Vanilla, Tahiti	lb	1 50
Black Haw, powdered	lb	35	BEBEERINE. Pure, 1-oz vials	oz	2 04
Black Haw, pressed, 1-lb.....	lb	30	Sulphate, 1-oz vials	oz	1 49
Black Willow, pressed, 1-lb.....	lb	25	BENZOLE. Pure	lb	35
Blackberry.	lb	20	H. P., Merck's	lb	37
Buckthorn, pressed, 1-lb.	lb	25	BENZIN. Gallon	gal	30
Butternut, pressed, 1-lb.	lb	25	5 and 10 gallons	gal	25
Calisaya, yellow, commercial.	lb	30	Pints	doz	1 60
Calisaya, yellow, commercial, powd.....	lb	32	BERBERINE. Hydrochloride, Merck's....	oz	2 29
Calisaya, East India.	lb	42	Sulphate, Merck's	oz	2 29
Calisaya, powdered.	lb	45	BERRIES. Buckthorn	lb	30
Canella	lb	30	Cocculus Indicus	lb	17
Canella, powdered	lb	35	Cubeb, stemless	lb	25
Cascara, Sagrada.	lb	18	Cubeb, powdered	lb	30
Cascara, Sagrada, powdered.	lb	20	Elder	lb	30
Cascarilla	lb	25	Juniper, Italian	lb	10
Cascarilla, powdered	lb	30	Poke	lb	25
Cassia.	lb	22	Prickly Ash.	lb	40
Cassia, powdered	lb	25	Sumac	lb	25
Cinchona, red.	lb	45-50	Sumac, powdered	lb	30
Cinchona, red powdered.	lb	45-50	BETOL	lb	60
Cinnamon, Ceylon.	lb	40 50	BISMUTH. Acetate, M. C. W.....	oz	36
Cinnamon, Ceylon, powdered.	lb	40-50	Citrate, M. C. W.....	lb	2 89
Cotton Root, powdered.	lb	35	Citrate, M. C. W.....	oz	26
Cotton Root, pressed, 1-lb.....	lb	35	Citrate and Ammonia, M. C. W.....	oz	26
Cramp, powdered	lb	25	Citrate and Ammonia, M. C. W.....	lb	2 80
Cramp, pressed, 1-lb.	lb	25	Lactate	oz	44
Cundurango	lb	45	Metallic	lb	2 50
Cundurango, powdered	lb	50	Nitrate, M. C. W.....	oz	24

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Oxide, Hydrated, M. C. W.....lb	3 68	English, Howard's lb	1 35
Oxide Hydrated, M. C. W.....oz	34	CAMPHOR. Monobromated, Mal'rodt's...oz	27
Oxychloride, M. C. W.....lb	2 73	Tar flake. lb	5-7
Salicylate, 40%, Merck's.....oz	23	Tar balls. lb	5-7
Salicylate, 64% Basic, Merck's.....oz	25	CANDY. Coltsfoot Rock lb	30
Salicylate, 64%, M. C. W.....lb	2 65	Horehound. lb	12
Subbenzoate oz	32	Rock, on strings lb	15
Subcarbonate lb	2 67	Rock, brown lb	16
Subgallate, Merck's oz	25	Rock, red lb	15
Subiodide, M. C. W.....lb	5 09	Rock, white lb	14
Subiodide, 1-oz vials, M. C. W.....oz	39	CANTHARIDES, Russian, powdered....lb	1 35
Subnitrate, M. C. W.....lb	2 37	Chinese, powdered lb	1 00
Tannic, 1-oz vials, M. C. W.....oz	27	CAPSICUM. African, pods lb	25
Valerianate, 1/8s oz	62	African, powdered lb	30
BLUE MASS lb	65	Bombay lb	20
Powdered lb	75	CARAMEL gal, \$1.25. lb	30
BLUE VITROL. Barrels, 8.....lb	12-15	CARBON. Bisulphide lb	30
Powdered lb	18	Bisulphide, 50-lb cans ea	5 18
BOLE. Armenian lb	18	Bisulphide, Wheeler's 50-lb can.....ea	5 18
BONE ASH lb	6-8	Bisulphide, 1-gal cans gal	1 43
BORAX. C. P., Squibb's lb	33	Bisulphide, quart bottles doz	4 50
Pacific Coast Borax Co., 1-lb.....doz	1 14	Bisulphide, Purif., Merck's.....lb	49
Pacific Coast Borax Co., 3/4-lb.....doz	90	CARMINE. No. 40. oz	40
Pacific Coast Borax Co., 1/4-lb.....doz	48	No. 40. lb	4 50
Powdered lb	8-12	CASSIA FISTULA lb	20
Pure Granular lb	25	CASTOR FIBER. oz	1 50
Refined lb	8-12	Castor Fiber, powdered oz	1 75
BOROFORMOL. Pints doz	7 50	CERATE. Cantharides lb	1 00
BOROGLYCERIDE Solution. lb	60	Goulard's, U. S. P. lb	70
BROMOFORM oz	20	Resin, U. S. P. lb	50
BROMINE lb	83	Savin lb	60
Chloride, solution oz	60	Simple lb	50
BRUCINE. 1/8-oz vials, M. C. W.....oz	1 75	Spermaceti lb	70
BRUCINE. Merck's oz	1 75	Turner's lb	60
Phosphate, Merck's oz	1 75	Zinc, Carbonate, true lb	60
Sulphate, Merck's, 1/8-oz vials.....oz	1 75	Zinc, Oxide lb	60
BUDS. Balm of Gilead lb	60	CERIUM. Oxalate, Merck's oz	09
Cassia lb	50	Oxalate, 1-lb cartons.....lb	52
BUTTER CACAO, Ghirardelli lb	67	CHALK. Crayons, white lb	15
German lb	72	French, cut lb	18-20
CADMIUM. Bromide, M. C. W.....oz	20	French, powdered lb	5-8
Iodide, M. C. W., 1-oz vials.....oz	33	Precipitated, English lb	10-12
Sulphate, M. C. W., 1-oz vials.....oz	24	Prepared in drops, bulk lb	7-8
CAFFEIN. Bromide, 1-oz vials.....oz	37	Prepared in drops, 5-lb boxes.....lb	8-10
1/8-oz vials oz	51	Prepared pink, 8-lb boxes.....lb	10
Citrated, Merck's oz	27	White, in lumps lb	3-4
Pure, Merck's oz	35	CHARCOAL. Animal lb	8-10
Sulphate, 1/8-oz vials, Mallinckrodt's.....oz	57	Willow, powdered lb	15-20
Salicylate, true salt, 1/8s, Mallinckrodt's.....oz	57	CHINA CLAY lb	10
CALAMINE lb	18	CHINESE SHAVINGS lb	60
CALCIUM. Bromide, 1-oz vials, M. C. W.....oz	12	CHINOIDINE. 1-oz rolls oz	12
Bromide, M. C. W.....lb	64	CHLORAL HYDRATE, CROTON, 1-oz vial	
Chloride, fused, M. C. W.....lb	64	incl. oz	35
Chloride, granular, M. C. W.....lb	30	Crystals, Merck's lb	1 35
Glycerylphosphate oz	22	Crystals, Merck's, 1/2s.....lb	1 45
Hypophosphite, 1-oz vials. oz	14	Crystals, Merck's, 1/4s.....lb	1 55
Hypophosphite. lb	89	Crystals, Merck's, oz.....lb	2 10
Hypophosphite and Sodium, 1-oz vials....oz	16	Crystals, M. C. W., 1s.....lb	1 35
Hypophosphite and Sodium, M. C. W...lb	1 09	Crystals, M. C. W., 1/2s.....lb	1 45
Iodide, 1-oz vials, M. C. W.....oz	37	Crystals, M. C. W., 1/4-lb cartons.....lb	1 50
Lactophosphate, soluble lb	1 35	Crystals, M. C. W., ozs.....lb	2 10
Lactophosphate, soluble oz	17	Crystals, 1-lb g. s. b. incl., Schering....lb	1 35
Phosphate, precipitated, 1-lb cart.....lb	20	Crystals, 1/2-lb g. s. b. incl., Schering...lb	1 45
Phosphide, 1-oz vials oz	50	Crystals, 1/4-lb g. s. b. incl., Schering...lb	1 55
Sulphate, pure lb	49	Crystals, 1-oz g. s. vls. incl., Schering....oz	17
Sulphide, 1-oz vials oz	10	CHLORALAMID 25 gramme	80
Sulphide lb	37	CHLOROFORM. 1-lb tin.....lb	52
Sulphite lb	84	In 7-lb bottle lb	42
Sulpho, carbolate, M. C. W.....oz	11	Squibb's, 1-500 gramme. lb	90
CALOMEL. Bulk. lb	1 00	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	25

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Bisulphate, M. C. W. oz	18	CROCUS MARTIS lb	16
Muriate, M. C. W.....oz	17	CUDBEAR lb	30
Sulphate, 1-oz vials, M. C. W.....oz	17	CUMARIN oz	45
CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	50	CUMENE (Cumol), Merck's lb	1 10
Bisulphate, 1-oz vials, M. C. W.....oz	30	CURCUMA. Powdered lb	16
Muriate, M. C. W. oz	32	CUTTLEFISH lb	35
Salicylate, 1-oz vials, M. C. W.....oz	34	Jeweler's lb	85
Sulphate, 1-oz vials, M. C. W.....oz	30	Powdered lb	30
Sulphate, 5-oz cans, M. C. W.....oz	25	DATURINE. Alk., cryst., 5-gr, Merck....ea.	75
CLOVES. Zanzibar lb	30	DEXTRIN. lb	12-15
Zanzibar, powdered lb	35	DIASTASE. of Malt oz	1 14
COBALT lb	25	DIGALEN. ½-oz bottles ea	1 00
Cobalt, powdered lb	30	DIGITALIN. ½-oz vials, Merck's.....oz	5 75
COCAINE. Alk., 1-oz vials, incl.....oz	3 50	DIONIN. ½s, Merck's oz	6 25
Hydrochloride, Merck's oz	2 65	15-gr vials, Merck's. ea	35
Hydrochloride Cryst., 1-oz v'ls, M.C.W..oz	2 65	DOVER'S POWDER, U. S. P.....lb	1 70
Hydrochloride Cryst., ½-oz v'ls, M.C.W..oz	2 80	DRAGON'S BLOOD, Mass. lb	55
Hydrochloride Cryst., ¼-oz v'ls, M.C.W..oz	2 90	Powdered lb	85
Hydrochloride Cryst., ⅛-oz v'ls, M.C.W..oz	3 05	Reed's. lb	85
COCHINEAL. Honduras. lb	60	DIURETIN. oz	1 80
Honduras, powdered. lb	65	DUBOISINE, Sulphate, Merck's, 10-gr vial..	1 10
CODEINE. Merck's Pure oz	5 75	EARTH, Fuller's, powdered. lb	8-10
Muriate 1-oz, \$5 50.....½s	5 70	EIKONOGEN, lb, \$3.95; ½s, \$4.20.....oz	37
Phosphate, ⅛-oz vials.....oz	5 45	¼s. lb	4 80
Sulphate, M. C. W.....oz	5 50	ELATERIN, Merck's, 15-gr vial.....	1 25
COLLODION lb	90	ELATERIUM, ⅛-oz vials. oz	3 00
1-oz vials doz	1 25	EMERY. Flour. lb	10-12
Cantharidal lb	2 35	Grain. lb	10-12
Cantharidal, 1-oz vials doz	2 20	EMETIN (Resinoid), Merck's. oz	7 53
Flexible lb	1 00	(Alkaloid), pure, Merck's, 15-gr vial.....	1 25
Flexible, 1-oz vials doz	1 50	ERGOT. Spanish. lb	65
COLCHICINE. cryst., Merck's, 15-grain...gr	14	Spanish, powd.....lb	65
C. P., Amorph., 15-grain vials.....gr	30	ERGOTIN. Ergotin-Bonjean, Merck's.....oz	39
COLOCYNTH. Apples, Trieste.....lb	60-65	ERGOTOLE. S. & D.....doz	4 50
Apples, powdered lb	75	ESERINE (Physostigmine), 5 gr Alkaloid,	
COMPOSITION POWDER, 2-oz papers..lb	35	Merck's gr	13
CONFECTION. Aromatic lb	1 00	Sulphate, 5-gr vials, Merck's.....ea	50
Opium lb	1 50	Sulphate, 10-gr vials, Merck's.....ea	1 00
Rose, U. S. P. lb	65	Sulphate, 15-gr vials, Merck's.....ea	1 50
Senna, U. S. P. lb	70	ETHER. Acetic, M. C. W., 1-lb bot.....lb	59
Theriac lb	1 25	Benzoic, 1-oz bot. oz	34
COPPER. Acetate, cryst., C.P., M.C.W....lb	74	Butyric, 1-lb bot. lb	1 70
Acetate, com'l, lump lb	40	Chloric, U. S. P., M. C. W., 1-lb bot....lb	64
Acetate, Po. Verdigris lb	45	Chloric, concent., M. C. W., 1-lb bot....lb	74
Ammoniated lb	59	Formic, 1-lb bot. lb	1 59
Arsenite, 1-oz vials, M. C. W. oz	19	Hydrobromic, 1-oz bot. oz	20
Arsenite, 1-oz vials oz	19	Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 05
Bromide oz	32	Nitrous, conc., M. C. W., ½-lb bot.....lb	95
Iodide, M. C. W. oz	44	Nitrous, conc., M. C. W., 1-lb bot.....lb	85
Nitrate lb	54	Nitrous Spirit, 4-lb bot. lb	58
Sulphate, C. P., granulated, 1-lb. boxes...lb	23	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	42
Sulphate, Caustic Pencils, Merck's.....doz	1 75	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	38
Sulphate, purified, 1-lb cartons.....lb	21	Sulphuric, conc., 1-lb can.....lb	87
COPPERAS. bbls 1¼.....lb	3-4	Sulphuric, conc., 3-lb can.....lb	84
CORROSIVE SUBLIMATE lb	92	Sulphuric, washed, 1-lb bot.....lb	55
Powdered. lb	95	Sulphuric, Squibb's, in 1-500 gm cans....ea	1 35
COTON. Para, Merck's, ⅛-oz.....oz	14 00	Sulphuric, Squibb's, in 1-250 gm cans....ea	72
COTTON. Negative. oz	60	Sulphuric, Squibb's, in 1-100 gm cans....ea	33
COWHAGE. 1-oz cans oz	55	Valerianic. oz	44
CREAM TARTAR, pure, powdered.....lb	34-37	ETHYL. Bromide, Merck's. oz	20
Pure, powdered, 25-lb box.....lb	30	Chloride, 10 gramme tubes Bengue.....doz	5 00
CREOLIN. ½-lb.....doz	4 00	Chloride, 30 gramme tubes Bengue.....doz	10 00
1-lb doz	8 00	Chloride, Merck's, 10 gramme.....ea	40
CREOSOTE. Beechwood, Merck's lb	94	Iodide (see Hydriodic Ether), Merck's..oz	54
Merck's, ½-lb. lb	1 10	EUCALYPTOL. Merck's. oz	16
Merck's, ¼-lb. lb	1 20	EUCAINE. A or B, ½s.....oz	3 60
CREOSOTE CARBONATE oz	65	EUDOXINE. oz	2 10
In ¼-lb lb	9 25	Tablets, 3-gr. oz	2 60
In ½-lb lb	9 15	Tablets, 5-gr. oz	2 50
In 1-lb lb	9 10	Tablets, 1-3 gr, ¼-oz bots.....oz	3 00

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EUKATROL, powd.....oz	1 00	GLYCYRRHIZIN. Ammoniated, Merck's...oz	34
Tablets.....oz	1 00	Ammoniated, Merck's.....lb	4 10
EUROPHEN. oz	1 80	GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70
EXALGINE. oz	1 50	Chloride, 15-gr vials, M. C. W.....doz	5 10
EXTRACT. Licorice, Corigliano. lb	45	Mono-bromide, Merck's, 15-gr vials.....ea	1 25
Licorice, Mellor & Rittenhouse.....lb	27-30	Tri-bromide, Merck's, 15-gr vials.....ea	1 00
Licorice, M. & R., 25 and 50-lb box....lb	26	Tri-cyanide, Merck's, 15-gr vials.....ea	2 00
Licorice, soft, perf., clearly soluble....lb	75	GOOSE GREASE. lb	60
Licorice, Y. & S.....lb	27-30	GRAINS. Paradise. lb	40
Licorice, powd. lb	35	Powdered. lb	45
Logwood, bulk lb	15	GUAIACOL. Carb. oz	1 50
Logwood, 1/4s. lb	20	Merck's. oz	18
Logwood, 1/2s. lb	18	GUARANA. Powd. lb	3 50
Logwood, 1s. lb	16	GUM. Aloes, Barbadoes.....lb	50
Male Fern, U. S. P., Merck's.....lb	2 25	Aloes, Barbadoes, powd.....lb	55
Malt, dry, Merck's. lb	1 25	Aloes, Cape. lb	20
Opium, Aqueous, dry, Merck's.....oz	1 04	Aloes, Cape, powd.....lb	20-25
Witch Hazel gal	80-90	Aloes, Socotrine lb	40
Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05	Aloes, Socotrine, powd.....lb	40
Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00	Ammoniac tears. lb	40
FAREOL. oz	50	Arabic, Turkey, first pick.....lb	55
FENETOLE lb	2 00	Arabic, Turkey, second pick.....lb	40
FERRATIN. Powder or tablets.....oz	85	Arabic, Turkey, sifted sorts. lb	20
FLAKE WHITE. English. lb	15	Arabic, first pick, granulated.....lb	58
FLOUR. Gluten. lb	15	Arabic, first pick, powd.....lb	60-65
Rice. lb	12	Asafoetida, Calcutta. lb	40
FLOWERS. Althea. lb	40	Asafoetida, powd. lb	45
Arnica lb	20-22	Asphaltum. lb	15
Arnica, powd. lb	25	Benzoin, marble, select. lb	50
Calendula, new lb	90	Benzoin, powd. lb	55
Chamomile, German, new.....lb	35	Camphor, bulk lb	95
Chamomile, Roman lb	40	Camphor, 1-oz blocks lb	98
Elder lb	30	Camphor, 24 to lb lb	98
Elder, pressed. oz	25	Camphor, powd. lb	1 10
Kooso. lb	75	Catechu, refined. lb	18
Kooso, powd. lb	80	Catechu, powd. lb	30
Lavender. lb	35	Copal lb	35
Mullein.....lb	1 00	Damar. lb	38
Orange.....lb	1 10	Galbanum. lb	1 00
Poppy, red. lb	75	Gamboge lb	1 10
Rose, red. lb	1 20	Gamboge, powd. lb	1 15
Rosemary. lb	35	Guaiac. lb	35
FLOUR SPAR. Powdered.....lb	25	Guaiac, powd. lb	40
FORMALDEHYDE. Merck's. lb	32	Kino, true. lb	75
5-lb bot. lb	25	Kino, true, powd.....lb	80
FORMALIN. S. & G. lb	40	Mastic tears lb	80
FORMIN. Merck's oz	18	Myrrh, Turkey. lb	35
GADUOL. Merck's. oz	37	Myrrh, Turkey, powd.....lb	40
GAMBIER. lb	15	Olibanum tears lb	30
GARANTOSE. 550 times sweeter than sugar.		Opium lb	8 00
1-lb cans, Merck's.....lb	2 25	Opium, powd. lb	9 00
1-oz cans, Merck's.....oz	20	Sandarac. lb	45
GELATIN. Cooper's, 12-lb case.....lb	65	Scammony, Aleppo. oz	40
Coxe's. doz	1 50	Scammony, Virgin, true.....oz	75
French Pink. lb	75	Shellac, bleached. lb	75
French Gold Label. lb	55	Shellac, orange. lb	70
French Silver Label.....lb	40	Shellac, ground. lb	75
GLASS. Powdered. lb	15	Spruce.....lb	1 50
Soluble. lb	25	Tamarac, true. lb	1 25
GLUCOSE. 1-lb bot.....lb	20	Thus. lb	12
GLUE. Common. lb	15	Tragacanth, ribbon. lb	90
White, No. 1. lb	25	Tragacanth, powd. lb	80
GLUTOL oz	65	GUTTA PERCHA. Crude, shavings.....lb	1 75
GLYCERINE. Price's. lb	70	Crude, sheets. lb	1 75
Pure, in 10-lb cans lb	21 1/2	HEDONAL. oz	1 60
Pure, in 50-lb cans lb	19	HEMICRANIN oz	90
GLYCEROPHOSPHATES. Iron, Merck's..oz	32	HEMOGALLOL. Merck's. oz	80
Lime, Merck's. oz	22	Tablets, Merck's. 100	80
Potash, Merck's oz	29	HEROIN. 1-oz. oz	6 70
Soda, Merck's. oz	28		

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1/2-oz vial	oz	6 85	Cryst. or powd., Merck's.....	oz	34
1/4-oz vial	oz	7 00	Deodorized.	oz	54
15-gr vial	ea	29	IODOL.	oz	1 25
Hydrochloride, oz vial	oz	6 70	IRON, Acetate, dry, 1-oz vials, M.C.W.....	oz	24
1/2-oz vial	oz	6 85	Acetate, liquor.	lb	44
1/4-oz vial	oz	7 00	Albuminate.	oz	20
15-gr vial	ea	29	Ammoniated, M. C. W.....	lb	44
HEXAMETHYLENAMINE.....	lb	1 60-1 75	And Ammonium Cit., Merck's.....	lb	75
"	oz	19	Arseniate, 1-oz vials.	oz	18
HIERA PICRA.	lb	50	By Hydrogen, Merck's.....	lb	58
HOFFMAN'S ANODYNE.	lb	75	Carbonate, precipitated.	lb	18
HOMATROPINE, Alk'l'd, 5-gr vials, Merck's.ea	2 25		Carbonate, proto.	lb	42
HOMATROPINE, Alk., 5-gr v'ls, Merck..ea	2 25		Carbonate, saccharated.	lb	45
Hydrobromate, 5-gr vials, Merck's.....ea	1 75		Chloride, 1-oz vials.....	oz	8
Hydrochlorate, 5-gr vials, Merck's.....ea	2 10		Chloride, crystal.	lb	34
HOMOGLOBIN, powd., Merck's.....	oz	1 04	Chloride, sol. for tincture.....	pt	35
HOPS, new, bulk.	lb	37	Citrate, soluble, 1-oz vials.....	oz	13
New, ozs.	lb	50	Citrate, soluble, M.C.W.	lb	75
New, 1/4s, 1/2s.	lb	40	Citrate and Quinine, sol., M. C. W.....	lb	2 00
HYDROCHINON, Merck's.	oz	18	Citrate and Quinine with Strych., M.C.W.lb	2 55	
Merck's.	lb	1 42	Citrate and Quinine with Strych., M.C.W.oz	26	
HYDROGEN PEROXIDE, Drevet's U.S.P.,			Citrate and Strychnine, 1-oz vials, M.C.W.oz	13	
1-lb bots.	doz	3 00	Ferrocyanide, 1-oz vials, M. C. W.....	oz	10
Drevet's U.S.P., 1/2-lb bots.....	doz	1 90	Ferrocyanide, M. C. W.....	lb	65
Drevet's U.S.P., 1/4-lb bots.....	doz	1 40	Filings.....	lb	16
Marchand's, 1-lb bots.....	doz	8 00	Glycerino Phosphate.	oz	32
Marchand's, 1/2-lb bots.....	doz	5 25	Hypophosphite, 1-oz vials, M. C. W.....	oz	20
Marchand's, 1/4-lb bots.....	doz	3 80	Iodide, 1-oz vials, M. C. W.....	oz	36
Marchand's, 1/8-lb bots.....	doz	2 25	Lactate, 1-oz vials, M. C. W.....	oz	10
M. C. W., 1-lb bots.....	doz	3 00	Lactophosphate, 1-oz vials, M. C. W.....	oz	19
M. C. W., 1/2-lb bots.....	doz	1 80	Nitrate, sol., U. S. P., M. C. W.....	lb	34
M. C. W., 1/4-lb bots.....	doz	1 20	Oxide, black.	lb	49
Oakland, 1-lb bots.....	doz	6 50	Oxide, brown, com'l, Merck's.....	lb	22
Oakland, 1/2-lb bots.....	doz	4 00	Oxide, brown, pure, Merck's.....	lb	74
Oakland, 1/4-lb bots.....	doz	2 25	Peptonized, Merck's.	oz	24
Oakland, 5-lb bots.....	ea	1 59	Phosphate, precipitate.	lb	39
HYDRO NAPHTHOL.	oz	75	Phosphate, U. S. P., scales.....	oz	13
HYDRASTINE, Alkaloid, Merck's.....	oz	10 04	Phosphate, U. S. P., scales.....	lb	75
Hydrochloride, Merck's.	oz	10 04	Pyrophosphate, soluble, Merck's.....	lb	75
HYDRASTININE, Hydrochloride, Merck's,			Pyrophosphate, U. S. P., 1880.....	oz	13
15-gr vials.	ea	2 10	Pyrophosphate, U. S. P., 1880.....	lb	75
HYDROQUINONE, Merck's.	oz	18	Reduced (Quevenne's)	lb	58
HYOSCINE, Amorphous, Merck's, 15-gr			Reduced (Quevenne's)	oz	10
vials.	ea	2 00	Salicylate, 1-oz vials, M. C. W.....	oz	15
Hydrobromate, 5-gr vials, Merck's.....ea	2 00		Subsulphate, M. C. W.....	oz	6
Hydriodide, 5-gr vials, Merck's.....ea	2 00		Subsulphate, M. C. W.....	lb	36
Sulphate, 5-gr vials, Merck's.....ea	2 00		Subsulphate, sol., M. C. W.....	lb	23
HYOSCYAMINE, Alkaloid, crys., Merck's,			Succinate, Merck's	oz	69
15-gr vials.	ea	4 75	Sulphate, dried.	lb	20
Amorphous, Merck's.	gr	25	Sulphate, gran., pure.....	lb	18
Hydrobromate, Amorph., Merck's, 15-gr..ea	3 00		Sulphate, pure, cryst., M. C. W.....	lb	20
Sulphate, crys., Merck's, 15-gr.....ea	3 03		Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13	
Sulphate, Amorph., 5-gr vials, Merck's....ea	1 25		Tannate, 1-oz vials, M. C. W.....	oz	22
IATROL.	oz	95	Tartrate and Ammonia, M. C. W.....	oz	11
ICHTHARGAN, Merck's.	oz	3 00	Tartrate and Ammonia, M. C. W.....	lb	72
ICHTHOFORM, Merck's.	oz	1 00	Tartrate and Potassium, M. C. W.....	oz	10
ICHTHYOL, 1-oz vials, Merck's.....	oz	32	Tartrate and Potassium, scale, M. C. W...lb	58	
1/4s, Merck's.	oz	4 25	Tersulphate, sol., U. S. P.....	lb	40
1/2s, Merck's.	oz	4 10	Valerianate.	oz	22
1s, Merck's.	oz	4 00	IODOTHYRINE.	oz	3 40
INDIGO, Manila, extra.....	lb	75	ISINGLASS, American	lb	1 05
IODIPIN (10% Iodized Sesame oil),			Russian.	lb	5 25
Merck's.	oz	28	KAMALA.	lb	65
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47		Powd.	lb	75
Chloride, 1-oz vials, M.C.W.....	oz	52	KAOLIN.....	lb	10
Resublimed, 1-oz vials, M. C. W.....	oz	35	KERATIN (Pepsinized), Merck's, 1/4s.....oz	3 53	
Resublimed, M. C. W.....	lb	3 43	KOUSSO.	lb	75
Burnham's, soluble.	oz	1 00	Powd.....	lb	75
IODOFORM, bulk, M. C. W.....	lb	3 85	KRYOFINE.	oz	1 00
			LACTUCARIUM, Merck's oz	80	

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LACTOPHEPIN. oz	1 00	Stramonium, powd. lb	30
LANOLIN. lb	80	Stramonium, pressed, oz. lb	25
Lanae Adeps, 1-lb cans, B. J. D. lb	35	Thyme, pressed, oz. lb	25
Lanae, British. lb	35	Uva, Ursi. lb	20
LANUM (Adeps Lanae Hydrosus), Merck's. lb	40	Witch Hazel, pressed, oz. lb	25
LARD, Benzoated, 5-lb cans. lb	27	LEECHES. ea	10
LARGIN, Merck's oz	1 75	2 dozen lots. ea	8
LEAD, Acetate, med. crys. or gran.,		LEPTANDRIN. oz	35
Merck's. lb	33	LIME, Chloride, 35-lb cans. lb	5
Acetate, white. lb	18	Chloride, in bbls of 350 lbs. lb	2 3/4
Acetate, white, powd. lb	25	Chloride, 1b cans doz	90
Acetate, purified, gran., 1-lb cart., M.C.W. lb	33	Chloride, 1/2-lb cans. doz	65
Bromide. oz	24	Chloride, 1/4-lb cans. doz	45
Carbonate. lb	12	LITHARGE. lb	12
Chloride, 1-oz vials. oz	11	LITHIUM, Benzoate, 1-oz vials, M. C. W. oz	16
Chromate, M. C. W. lb	1 19	Bromide, Merck's. oz	24
Iodide, 1-oz vials, M. C. W. oz	27	Bromide, 1-oz vials, M. C. W. oz	24
Nitrate, 1-lb boxes, M. C. W. lb	23	Carbonate, Merck's. oz	20
Nitrate, chemically pure, M. C. W. lb	40	Citrate, 1-oz vials, M. C. W. oz	18
Oxide, chemically pure, M. C. W. lb	84	Citrate, cryst. or powd., Merck's. oz	18
Oxide, Merck's. lb	84	Iodide, Merck's. oz	38
Subacetate, sol. lb	35	Salicylate, 1-oz vials, M. C. W. oz	16
Sulphate, pure, M. C. W. lb	63	LITMUS. lb	50
Tannate, 1-oz vials, M. C. W. oz	24	Paper. doz	50
LEAVES, Aconite, German. lb	30	LODESTONE. lb	75
Aconite, powd. lb	30	LONDON PURPLE. lb	20
Aconite, pressed. oz	25	LOSOPHAN. oz	1 80
Angelica, pressed. oz	25	LUPULIN, German. lb	75
Bay, bulk. lb	15	LYCOPodium. lb	75
Belladonna, English, bts. lb	1 25	LYCETOL. oz	4 25
Belladonna. lb	30	LYSOL, 1-gal. jugs. gal	4 00
Belladonna, powd. lb	35	Pints. doz	8 00
Belladonna, pressed. oz	35	MACE. lb	75
Blessed Thistle, pressed. oz	34	Powd. lb	75
Borage, pressed. oz	35	MADDER, Dutch. lb	15
Buchu, long. lb	55	MAGNESIUM, Benzoate, Mallinckrodt's. oz	24
Buchu, short. lb	40	Bromide, Mallinckrodt's. oz	25
Buchu, powd. lb	40	Calcined, Jennings', 1-lb cans. lb	85
Buckbean, pressed oz	30	Calcined, K. & M.'s, 1-lb cans. lb	75
Cocoa. lb	45	Calcined, K. & M.'s, heavy. lb	80
Conium. lb	30	Carbonate, Jennings', 2-oz. lb	35
Conium, powd. lb	35	Carbonate, Jennings', 4-oz. lb	35
Conium, pressed. oz	30	Carbonate, K. & M.'s, 1-oz. lb	27
Coltsfoot, pressed. oz	25	Carbonate, K. & M.'s, 2-oz. oz	23
Damiana. lb	30	Carbonate, K. & M.'s, 4-oz. lb	23
Digitalis, pressed. oz	35	Carbonate, K. & M.'s, small sq. lb	60
Digitalis. lb	35	Carbonate, powd., in 65-lb bbls. lb	13
Digitalis, powd. lb	35	Carbonate, powd., in 10-lb boxes. lb	16
Eucalyptus. lb	20	Citrate, dry, English. lb	65
Grindelia Robusta lb	25	Citrate, sol. doz	1 75
Grindelia Squarosa lb	40	Glycerinophosphate, Merck's. oz	44
Hemlock, pressed. oz	30	Hypophosphite, 1-oz vials, M. C. W. oz	20
Henna. lb	50	Hypophosphite, M. C. W. lb	1 69
Henna, powd. lb	55	Hypophosphite, Merck's. oz	20
Henbane. lb	30	Iodide, M. C. W. oz	47
Henbane, powd. lb	30	Sulphite, Mallinckrodt's lb	49
Henbane, pressed, oz. lb	30	MANGANESE, Black, Oxide lb	8-10
Jaborandi. lb	35	Phosphate, M. C. W. oz	18
Jaborandi, powd. lb	40	Carbonate, 1-oz vials, M. C. W. oz	14
Laurel. lb	25	Chloride, 1-oz vials, M. C. W. oz	14
Lovage, pressed, oz. lb	30	Hypophosphite, 1-oz vials, M. C. W. oz	20
Lungwort, pressed, oz. lb	34	Hypophosphite, Merck's. oz	20
Marjoram, sweet lb	36	Iodide, 1-oz vials, M. C. W. oz	47
Rosemary, bulk. lb	20	Peptonized, Merck's. oz	29
Rosemary, pressed, oz. lb	25	Phosphate, M. C. W. oz	18
Sage, oz. lb	25	Sulphate, 1-oz vials, M. C. W. oz	9
Savin, pressed, oz. lb	25	MANNA, Large flake lb	95
Senna, Alexandria, garbeled. lb	30	Small flake lb	65
Senna, Alexandria, powd. lb	30	MENTHOL. oz	35
Senna, Tinnevely, select. lb	25	Cryst., 1-oz vials, Mallinckrodt's. oz	35

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Crystallized lb	3 65	Surgeon's. lb	20
MERCURY, Chloride, Merck's. lb	99	OIL, Almonds, Bitter, true, Merck's. lb	6 59
Ammoniate, d white precip. lb	1 25	Almonds, Bitter, Allen's. oz	75
Bisulphate. lb	75	Almonds, Sweet, Allen's. lb	75
Cyanide. oz	31	Almonds, Sweet. lb	45-60
Iodide, Green, Merck's oz	24	Amber, rectified. lb	60
Iodide, green, 1-oz vials, M. C. W. oz	24	Anise. lb	2 00-2 25
Iodide, Red, Merck's. oz	26	Bay Leaves, true oz	40
Iodide, red, 1-oz vials, M. C. W. oz	26	Bay Leaves lb	4 25-4 50
Iodide, Yellow, Merck's. oz	24	Benne. gal	1 20
Iodide, yellow, 1-oz vials, M. C. W. oz	24	Bergamot lb	5 25-5 50
Nitrate, proto., 1-oz vials, M. C. W. oz	27	Birch Tar, rectified. lb	1 25
Nitrate, solution, 1-oz vials. oz	27	Cade. lb	50
Oxide, black, 1-oz vials. oz	18	Cajuput (21-oz bottles). lb	1 10-1 35
Oxide, red (red precip.) lb	1 20	Calamus. oz	45
Oxide, yellow, 1-oz vials. oz	18	Camphor, E. I. lb	45
Salicylate, M. C. W. oz	27	Caraway, seed. lb	2 25
Subsulphate, 1-oz vials. oz	15	Cardamon. oz	2 50
Subsulphate. lb	1 06	Cassia lb	1 85-2 00
Sulphuret, black. lb	78	Castor, Baker's A. A. gal	1 38-1 50
With Chalk, 1-lb cartons. lb	50	Castor, Marsh's gal	1 34-1 45
METHYL, SALICYLATE. lb	80	Castor, 2-oz bottles. doz	85
METHYLENE, Blue Medicinal, Merck's. oz	45	Castor, 4-oz bottles. doz	1 25
MILK SUGAR, Cryst. lb	33	Castor, 6-oz bottles. doz	1 75
Powdered, bulk lb	23	Castor, 8-oz bottles. doz	2 25
M. C. W., 1-lb cartons lb	25	Castor, 12-oz bottles. doz	2 50
MORPHINE. Sulphate, $\frac{1}{8}$ s, 1-oz box, M. C. W. oz	3 90	Castor, 16-oz bottles. doz	3 75
Sulphate, $\frac{1}{8}$ s, 2 $\frac{1}{2}$ -oz box, M.C.W. oz	3 85	Cedar lb	60-100
Sulphate, 1-oz vials, M.C.W. oz	3 65	Cedrat. oz	40
Sulphate, 5-oz can, M.C.W. oz	3 60	Celery. oz	1 40
In 10-oz lots, 10c oz less.		Chamomile, German. oz	5 00
Morphia, Acetate, $\frac{1}{8}$ s, M. C. W. oz	4 25	Chamomile, Roman. oz	1 75
Morphia, Muriate, $\frac{1}{8}$ s, M. C. W. oz	4 15	China, Nut. gal	1 00
Morphia, Valerianate, $\frac{1}{8}$ s, M. C. W. oz	5 15	Cinnamon, Ceylon. oz	90
Other salts or Morphine subject to market price based on above.		Citronella lb	75-85
MOSS, Iceland. lb	18	Cloves. lb	1 75-2 00
Irish. lb	15	Cocanut lb	20-25
Irish, bleached. lb	20	Codliver, White, Norwegian. gal	1 65
MUSK, Chinese oz	40	Codliver, white, Norwegian, 5-gal cans. gal	1 50
Tonquin, grain dr	3 25	Codliver, white, Newfoundland. gal	1 40
MUSTARD, Colman's, 4-oz cans. doz	1 75	Cognac, green. oz	2 50
Colman's, 5-lb cans lb	50	Cologne. oz	50
Ground, Domestic, 5-lb cans. lb	18	Copaiba. lb	1 75
NAPHTHALIN, Balls. lb	5-7	Coriander. oz	90
Resublimated, Merck's. lb	27	Cotton Seed (salad), 5-gal can. gal	1 05
Pure, 1-lb cartons, M. C. W. lb	27	Cotton Seed (salad), 1-gal can. gal	1 35
NAPHTHOL, Alpha. oz	30	Croton, 24-oz bots. lb	1 50-1 65
Beta. oz	10	Croton oz	20
NICKEL, Bromide, Merck's. oz	32	Cubebs lb	165-1 75
Bromide, 1-oz vials, M.C.W. oz	29	Ergot, Keith's. oz	57
Nickel and Ammonia Sulphate, M. C. W. lb	34	Erigeron, Keith's. oz	38
Sulphate, 1-oz vials, M. C. W. oz	9	Erigeron lb	2 75
Sulphate, Merck's. oz	10	Eucalyptus lb	85
NOSOPHEN. doz	4 50	Fennel Seed lb	2 25
NUTGALLS, Aleppo. lb	30	Fusil, purified. lb	80
Aleppo, ground. lb	35	Geranium, Rose, Chris. oz	75
Aleppo, powd. lb	35	Hemlock lb	85
NUTMEGS, Macassar, large. lb	60	Hydrocarbon. gal	1 25
Penang, powd. lb	65	Jasmin, alcoholic. lb	3 00
NUTS, Areca lb	30	Juniper Berries. lb	1 25-1 50
Areca, powd. lb	40	Juniper, wood. lb	75
Kola. lb	35	Lard. gal	1 10
Kola, powd. lb	40	Laurel, expressed. lb	60
NUX VOMICA. lb	25	Lavender, Flowers lb	3 85
Powdered or rasped. lb	25	Lavender, Garden lb	1 25
OAKUM lb	15	Lemon lb	2 75
		Lemon, Sanderson's lb	3 00
		Lemon, Grass lb	3 00
		Linseed, raw gal	74
		Linseed, raw, case gal	67

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Linseed, boiled	gal	74	PAPAIN, Boehringer.	oz	75
Linseed, boiled, case	gal	69	Merck's.	oz	60
Mace, expressed.	lb	1 75	PARAFFINE, refined.	lb	12-15
Male Fern, ethereal.	oz	35	PARALDEHYDE, Merck's.	lb	99
Myrbane.	lb	40	Merck's.	oz	14
Mullein.	oz	45	PARIS GREEN.	lb	38-42
Musk, alcoholic.	oz	1 00	PASTILLES, Fumigating, black.	lb	50
Mustard, essential.	oz	50	Fumigating, red.	lb	50
Mustard, expressed.	gal	90	PEARL ASH.	lb	8-10
Neatsfoot, No. 1.	gal	90	PEEL, Orange, sweet, ground.	lb	20
Neroli, Petal.	oz	3 00	Orange, bitter, coarse.	lb	20
Neroli, Bigarade.	oz	5 75	Orange, bitter, powdered.	lb	20
Neroli, Petit Grain.	oz	55	Orange, sweet, quarters.	lb	20
Nutmegs, essential.	oz	35	PELLETIERINE, Sulphate, Merck's, 15-gr vial	1 75	
Olive, pure, Malaga.	gal	1 25	Tannate, Merck's, 15-gr vial.	35	
Olive, California.	gal	3 00	PEPPER, black, Singapore, sifted.	lb	30
Olive, ½-gals.	gal	3 25	Black, powd.	lb	30
Olive, small.	doz	3 75	White.	lb	40
Olive, large.	doz	7 50	White, powd.	lb	40
Olive, imported.	gal	2 00-2 10	PEPSIN, pure, U. S. P.	lb	4 50
Orange, bitter.	lb	4 50	Powd. or scales.	lb	4 50
Orange, sweet.	lb	3 25	Powd., Ph. G. III.	oz	25
Origanum, pure.	lb	60	PEPTONE, Merck's, dry, from meat.	oz	34
Origanum, Chris.	lb	1 85	PETROLATUM, 1-lb cans.	doz	2 00
Palm.	lb	25	50-lb pails.	lb	7
Patchouly.	oz	75	25-lb pails.	lb	7½
Pennyroyal.	lb	4 00	10-lb cans.	lb	9
Pepper, black.	oz	20	5-lb cans.	lb	10
Peppermint, Hotchkiss.	lb	3 25-3 50	Snow White, 50-lb pails.	lb	15½
Peppermint, Wayne Co.	lb	2 75-3 00	Snow White, 25-lb pails.	lb	16½
Peppermint, Western.	lb	2 75-3 00	Snow White, 10-lb cans.	lb	18
Pimento.	oz	30	Snow White, 5-lb cans.	lb	25
Pinus, Sylvestris, German.	lb	1 50	Snow White, 1-lb cans.	lb	30
Pinus, Pumilio.	lb	4 50	PHENACETINE.	oz	33
Pinus Pumilio.	oz	40	PHENILINE.	oz	1 00
Rhodium.	oz	35	PHENOLPHTHALEIN.	oz	34
Rose, Kizanlik.	oz	6 25-6 50	PHOSPHORUS, 1-lb cans.	lb	85
Rosemary, flowers.	lb	1 25-1 50	½-lb cans.	lb	95
Rue.	oz	40	¼-lb cans.	lb	1 05
Sandalwood, English.	lb	5 50	Amorphous.	lb	1 44
Sandalwood, German.	lb	3 00-3 20	PIPERAZIN, Schering's 10-gm vials.	bot	1 50
Sassafras.	lb	90-1 00	½-oz and 1-oz.	oz	4 25
Savin.	lb	1 75	PIPERIN, 1-oz vials, Mallinckrodt's.	oz	62
Spearmint.	lb	3 50	Merck's.	oz	62
Sperm.	gal	1 00	PIPE CLAY.	lb	12
Spike.	lb	35	PITCH, Burgundy.	lb	15
Spruce.	lb	85	PITH, Sassafras.	lb	1 50
Tansy.	lb	5 00	PLATINUM and Barium Cyanide, cr.,		
Tar.	lb	25	Merck.	gr	15
Thyme, white.	lb	1 50	And Potassium Chloride, M's, 15-gr		
Turpentine, pure.	lb	55	vials.	ea	80
Wine, light.	oz	40	Chloride, Merck's.	oz	18 00
Wine, heavy.	oz	50	Chloride, solution, 10%, Merck's.	oz	2 82
Wintergreen.	lb	4 00-4 25	PODOPHYLLIN.	oz	30
Wormseed.	lb	3 75-4 00	POPPY HEADS, German.	lb	30
Wormwood.	lb	4 25-4 50	POTASH, Babbitt's, 4 doz in case.	case	3 40
Ylang Ylang.	oz	4 50	Caustic, pure, by alcohol.	lb	60
OINTMENT, Basilicon.	lb	65	Caustic, white.	lb	37
Citrine.	lb	65	Caustic, 10-lb cans.	lb	10-12
Iodine.	lb	1 25	Solution (liq. potass.)	lb	35
Mercurial, ½ m.	lb	65	POTASSIUM, Acetate, Merck's, 1-lb bot.	lb	42
Mercurial, ⅓ m.	lb	55	Acetate, M. C. W., 1-lb.	lb	42
Stramonium.	lb	75	Antimonate, Merck's.	lb	1 09
Tar.	lb	50	Arsenate, 1-oz vials, Merck's.	oz	14
Zinc, benzoated.	lb	65	Bicarbonate, cryst., M. C. W.	lb	20
Zinc, oxide.	lb	65	Bicarbonate, cryst., H. P., Merck's.	lb	34
OPIUM, powd., Merck's.	lb	9 00	Bicarbonate, granulated, M. C. W.	lb	20
ORTHOFORM.	oz	1 40	Bicarbonate, powd.	lb	20
PANCREATIN, Merck's, pure.	oz	44	Bichromate.	lb	18-20
Pure, scales, P. D. & Co.	oz	50			

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M. C. W. lb	34	Sulphate, 1-oz cans, M.C.W.....oz	28
Bromide, crys. or gran., M. C. W.....lb	32	Sulphate, 5-oz cans, M.C.W.....oz	25
Carbonate, purified, M. C. W.....lb	41	Sulphate, 25-oz cans, M.C.W.....oz	21
Carbonate, bulk. lb	15	Sulphate, 50-oz cans, M.C.W.....oz	20
Caustic, pure, Merck's.....lb	37	Sulphate, 100-oz cans, M.C.W.....oz	18
Caustic, C. P., Merck's.....lb	2 59	Tannate, Neutral, Merck's. oz	38
Chlorate, cryst. lb	16-18	Tannate, 1-oz vials, M.C.W.....oz	37
Chlorate, gran., pure, M. C. W.....lb	22	Valerianate, 1-oz vials, M.C.W.....oz	57
Chlorate, powd. lb	16-18	QUINOLINE, Merck's oz	45
Chromate, yellow, neutral. lb	40	Tartrate, Merck's oz	45
Chromate, yellow, H. P., Merck's.....lb	69	RED SAUNDERS. lb	12
Citrate, M. C. W.....lb	72	RESIN, Jalap, Merck's.....oz	54
Citrate, H. P., Merck's.....lb	1 19	Copaiba. lb	1 50
Cyanide, fused, M. C. W.....lb	45	Scamony oz	40
Cyanide, C. P. 99%.....lb	52	RESORCIN, cryst., Merck's oz	18
Cyanide, Miner's, 10-lb tin.....lb	28	Resublimed, H. P., Merck's.....oz	66
Ferricyanide, chem. pure, M. C. W.....lb	1 34	M. C. W.....lb	1 50
Ferrocyanide, pure, Merck's.....lb	59	M. C. W.....oz	19
Glycerinophosphate. oz	26	ROOT, Abscess, pressed, lb.....lb	40
Hypophosphite, purified, Merck's.....lb	1 14	Aconite, powd.....lb	35
Hypophosphite, M. C. W.....lb	99	Aconite, pressed.....lb	32
Iodide, M. C. W., 1-lb boxes.....lb	2 52	Alkanet lb	25
Nitrate, cryst. lb	10-12	Alkanet, powd.....lb	30
Nitrate, granulated. lb	10-12	Angelica, pressed lb	20
Nitrate, chemically pure, M. C. W.....lb	30	Angelica, powd lb	25
Oxalate, neutral. lb	28	Arnica, pressed lb	35
Permanganate, cryst., 1-oz vials.....oz	8	Belladonna, pressed, lb. lb	25
Permanganate, large cryst., pure, M.C.W..lb	27	Belladonna, powd.....lb	28
Permanganate, small cryst.....lb	25	Berberis Aquif, pressed, lb.....lb	4
Phosphate, 1-oz vials.....oz	11	Beth, pressed, lb.....lb	30
Phosphate lb	64	Beth, powd lb	35
Prussiate, red. lb	65	Blackberry, pressed, lb.....lb	30
Prussiate, yellow. lb	35	Blood, pressed, lb.....lb	30
Sulphate, cryst. or powd.....lb	16	Blood, powd.....lb	35
Sulphate, chemically pure.....lb	60	Blue Flag, pressed lb	25
Sulphide (Liver Sulphur).....lb	24	Burdock, pressed, lb. lb	25
Sulphurated, Merck's. lb	25	Burdock, powd.....lb	25
Tartrate (soluble Tartar).....lb	59	Calamus, peeled lb	30
POWDER, Antimonial. lb	85	Calamus, white, peeled and split.....lb	50
Aromatic. lb	1 25	Calamus, powd.....lb	35
Carbolic Acid, disinfecting.....doz	1 50	Cohosh, black, pressed. lb	25
Chalk, aromatic. lb	75	Cohosh, black, powd. lb	25
Chalk, compound. lb	75	Cohosh, blue, pressed, lb.....lb	25
Chalk and Opium. lb	2 50	Cohosh, blue, powd.....lb	25
Composition, 2-oz papers.....lb	35	Colchicum lb	28
Dover's lb	1 70	Colchicum, powd lb	35
Insect, Buhach, 6-lb cans.....lb	60	Columbo, foreign. lb	25
Insect, Dalmatian. lb	25-30	Columbo, powd.....lb	25
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Comfrey, pressed, lb. lb	25
Jalap, comp. lb	1 00	Comfrey, powd.....lb	25
Licorice, comp. lb	25	Cranesbill, pressed, lb.....lb	25
Licorice, comp., 2-oz packages.....doz	75	Culvers, pressed, lb.....lb	25
Rhubarb, comp. lb	1 50	Culvers, powd lb	30
Tooth. lb	50	Dandelion, Am., pressed, lb.....lb	45
PROPYLAMIN, 10% solution, Merck's....oz	55	Dandelion, powd. lb	42
Hydrochlorate, 1/8-oz vials. oz	3 50	Dwarf Elder, pressed, lb.....lb	35
PROTARGOL. oz	1 25	Elecampane, pressed, lb. lb	25
PULVIS ANTIMONIALIS. lb	85	Elecampane, powd lb	25
PYOKTANIN, Blue or Yellow, Merck's...oz	1 50	Gelsemium, pressed, lb.....lb	25
PYRIDINE, Merck's. oz	32	Gelsemium, powd lb	25
QUICKSILVER. lb	80	Gentian lb	18
QUINACETINE. oz	85	Gentian, ground lb	20
QUINALGIN. oz	1 25	Gentian, powd lb	20
QUININE, Alkaloid, 1-oz vials, M.C.W....oz	58	Ginger, African. lb	17
Bisulphate, 1-oz vials, M.C.W.....oz	28	Ginger, African, powd lb	18
Bisulphate, 5-oz cans, M.C.W.....oz	26	Ginger, Jamaica, bleached. lb	27
Citrate, 1-oz vials, M.C.W.....oz	57	Ginger, Jamaica, bleached, powd.....lb	30
Muriate, 1-oz vials, M.C.W.....oz	51	Ginseng lb	8 50-10 00
Phosphate, 1-oz vials, M.C.W.....oz	55	Golden Seal lb	2 10
Salicylate, 1-oz vials, M.C.W.....oz	54	Golden Seal, pressed lb	2 15

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Golden Seal, powd. lb	2 15	Turkey Corn lb	28
Hellebore, black, pressed.....lb	25	Unicorn, true, pressed lb	35
Hellebore, black, powd.....lb	25	Unicorn, true, powd lb	40
Hellebore, white, pressed, lb.....lb	25	Unicorn, false, pressed.....lb	40
Hellebore, white, powd.....lb	25	Unicorn, false, powd lb	45
Indian Hemp, black, pressed, lb.....lb	35	Valerian, English, bulk.....lb	35
Indian Hemp, black, powd lb	40	Valerian, English, powd lb	35
Indian Hemp, white, pressed lb	25	Valerian, German lb	30
Indian Hemp, white, powd lb	30	Valerian, German, powd lb	30
Ipecac, Rio, powd.....lb	2 50	Yellow Dock lb	25
Jalap lb	30	Yellow Dock, ground lb	30
Jalap, powd lb	35	Yellow Dock, powd lb	30
Kava Kava lb	50	Zedoary lb	30
Ladies' Slipper, pressed, lb.....lb	75	ROSIN, No. 1. lb	6-8
Licorice, select lb	16	Barrel. lb	7 75
Licorice, pipestem lb	18	ROUGE, Jewelers' lb	50
Licorice, cut, Russian lb	20	SACCHARIN tin	35
Licorice, powd lb	16-20	SAFFRON, American lb	60
Mandrake, pressed, lb.....lb	30	Spanish. oz	80
Mandrake, powd lb	35	Spanish.....lb	10 00
Marshmallow, cut lb	34	SAL, Acetosella lb	30
Marshmallow, powd lb	35	Epsom lb	2 1/2-5
Musk lb	30	Glauber lb	1 1/2-4
Orris, Florentine lb	25	Nitre lb	10-12
Orris, Florentine, Fingers.....lb	1 25	Nitre, granulated. lb	10-12
Orris, Florentine, granulated.....lb	35	Nitre, powd. lb	10-12
Orris, Florentine, powd.....lb	30	Prunelle lb	45
Pareira Brava, pressed lb	34	Rochelle. lb	28-30
Pink. lb	85	Soda. lb	3-5
Pink, powd. lb	90	Tartar. lb	15
Pleurisy, pressed lb	25	SALICINE, Merck's.....oz	37
Poke, pressed lb	25	Salicine lb	4 60
Poke, powd lb	20	SALIPYRINE oz	1 00
Pond Lily, white, pressed lb	40	SALOL, Mallinckrodt's.....oz	15
Pond Lily, white, powd lb	40	Salol, Mallinckrodt's, cartons lb	1 17
Pond Lily, yellow, pressed lb	30	Salol, Merck's lb	1 25
Pond Lily, yellow, powd lb	35	Salol, Merck's oz	15
Rhatany lb	30	SALOPHEN oz	1 00
Rhatany, powd lb	35	SANTONIN, bulk, M.C.W. lb	14 09
Rhubarb, East India lb	75	Cryst., Merck's oz	99
Rhubarb, East India, powd lb	75	1-oz vials, M.C.W. oz	99
Rhubarb, cut in cubes, No. 1.....lb	1 25	SEED, Angelica lb	25
Rhubarb, cut in cubes, No. 2.....lb	1 00	Anise, Italian lb	20
Rhubarb, cut in fingers, No. 1.....lb	1 50	Anise, Italian, powd.....lb	25
Rhubarb, cut in fingers, No. 2.....lb	1 25	Anise, Star lb	45
Salep, powd lb	1 00	Bird, mixed, bulk. lb	8
Sarsaparilla, American lb	35	Bird, mixed, boxes. doz	1 00
Sarsaparilla, American, powd lb	35	Bird, mixed, cases, 30 pks.....	2 25
Sarsaparilla, Honduras lb	70	Burdock lb	25
Sarsaparilla, Honduras, ground lb	70	Canary lb	9-10
Sarsaparilla, Honduras, powd lb	70	Caraway, Dutch. lb	15
Sarsaparilla, Mexican lb	20	Caraway, powd. lb	17
Sarsaparilla, Mexican, ground lb	25	Cardamon, Malabar. lb	1 00
Sarsaparilla, Mexican, powd lb	25	Cardamon, Mangalor, bleached.....lb	1 25
Senega, pressed lb	75	Cardamon, powd. lb	1 00
Senega, powd. lb	80	Celery lb	25
Silkweed, pressed lb	28	Colchicum. lb	50
Skunk Cabbage, pressed lb	30	Colchicum, powd. lb	55
Skunk Cabbage, powd lb	35	Conium lb	25
Snake, Canada, pressed.....lb	65	Coriander, German. lb	14
Snake, Virginia lb	65	Coriander, German, powd.....lb	20
Snake, Virginia, powd lb	70	Cumin lb	18-20
Spikenard, pressed lb	72	Dill lb	2
Spikenard, powd lb	30	Fennel. lb	1
Squills, white, sliced. lb	20	Fennel, powd. lb	2
Squills, powd lb	60	Flax, recleaned. lb	5 1/2-
Stillingia, pressed lb	25	Flax, ground. lb	5 1/2-
Stillingia, powd lb	30	Flax Oil Cake lb	2 1/2-3 1/2
Stone, pressed lb	25	Foenugreek, powd lb	1
Sweet Flag, pressed lb	25	Hemp, recleaned lb	6 1/2-

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Henbane	lb	35	Cacodylate, Merck's	oz	84
Larkspur.	lb	55	Carbonate, pure cryst., 1-lb car., M. C. W.	lb	11
Lobelia.....	lb	60	Carbonate, pure gran., 1-lb car., M. C. W.	lb	11
Lobelia, powd.	lb	65	Carbonate, dried, C. P., 1-lb car.....	lb	27
Millet, American.	lb	6-8	Cinnamate	oz	59
Mustard, black, Trieste	lb	10-12	Citrate, M. C. W.....	lb	74
Mustard, white	lb	10-10	Glycerophosphate, 75%, Merck's.....	oz	24
Poppy Blue	lb	16	Glycocholate.	oz	1 04
Pumpkin	lb	22	Hypophosphite, purified, Merck's.....	lb	1 14
Rape, California.	lb	6-8	Hypophosphite, 1-oz vials, Merck's.....	oz	15
Sabadilla	lb	35	Hyposulphite, 112-lb kegs.	lb	3
Sabadilla, powd	lb	30-35	Hyposulphite, less	lb	5
Stavesacre	lb	40	Iodide, 1-oz vials, M. C. W.....	oz	31
Stavesacre, powd	lb	45	Iodide, H. P., Merck's.....	oz	31
Stramonium	lb	25	Iodide, M. C. W.....	lb	3 53
Stramonium, powd	lb	30	Nitrate, cryst., C. P.....	lb	29
Sunflower	lb	15	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Watermelon	lb	25	Phosphate, pure, recryst., bulk.....	lb	12
Worm, American	lb	25	Phosphate, gran., pure, M. C. W.....	lb	13
Worm, American, powd	lb	25	Phosphate, dried, powd.....	lb	24
Worm, Levant	lb	35	Salicylate, Merck's	lb	49
Worm, Levant, powd	lb	40	Santoninate, Merck's	oz	89
SEIDLITZ MIXTURE	lb	28-30	Succinate	oz	1 00
SILVER, Bromide, 1-oz. vials, M. C. W.....	oz	1 19	Sulphate, Glauber Salts.....	lb	3-5
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, dried	lb	18-20
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphite, crystals	lb	10
Lactate, Merck's	oz	1 04	Sulphite, granulated	lb	18
Nitrate, cryst., 1-oz vials, M.C.W.....	oz	59	Sulphite, dry, Merck's.....	lb	22
Nitrate, cones, 1-oz vials.....	oz	71	Tartrate, Merck's	lb	64
Nitrate, fused (Lunar caustic), 1-oz vials, M. C. W.	oz	62	SOLUTIONS, Donovan's	lb	34
Nitrate, fused, No. 2, 1-oz vials.....	lb	48	Fowler's	lb	30
SNUFF, Garrett's, 1-oz tins.....	doz	60	Goulard's	lb	35
Garrett's, 1 2/3-oz tins.	doz	1 10	Nitrate, Iron	lb	50
Garrett's, 3 1/3-oz tins.....	doz	1 75	Mercury, Nitrate	oz	20
Garrett's, 6-oz bots.....	doz	3 25	Monrel's	lb	50
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Tin, Chloride	lb	35
Rappee	lb	65	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Rappee, 3 1/3-oz bots.....	doz	2 00	Somatose, Ferro, 2-oz tins.....	doz	10 50
Scotch, Lorillard's	lb	65	Somatose, 2-oz tins.....	doz	8 25
Scotch, Lorillard's	doz	2 00	Somatose, 1 1/4-lb tins.....	lb	5 25
Scotch, Garrett's Bladders.....	lb	55	Somatose, 1 1/2-lb tins.....	lb	5 00
SOAP, Castile, Conti's, white, box 14c less..	lb	17	SOZOIODOL, Mercury, Merck's.....	oz	1 15
Castile, mottled, box 8 1/2c; less.....	lb	12	Potassium, Merck's	oz	75
Castile, Kirk's (San Bernaldo) white, 18 bars	per box	3 00	Sodium, Merck's	oz	80
Castile, powdered, white.....	lb	35	Zinc, Merck's	oz	1 10
Green, German	lb	25	SPARTEINE, Sulphate, Merck's, 1/8s.....	oz	83
Opodeldoc	lb	65	Sulphate, 15-gr. vials.....	ea	12
SODA, Ash.	lb	2 1/2-5	SPERMACETI, in cakes.....	lb	42-45
Caustic, Sticks, Merck's.....	lb	34	SPIRIT, Ammonia	lb	75
Caustic, com., drums.....	lb	3-4	Ammonia, aromatic.	lb	85
Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2	Camphor	lb	75
Caustic, purified, fused.....	lb	40	Chloroform, U. S. P.....	lb	75
Sal (carbonate) bbls., 1 1/4c.....	lb	3	Lavender	lb	60
Soda Silicate, dry	lb	35	Nitre, U. S. P., 1-lb bots.....	lb	65
Soda Silicate, liquid.....	lb	15-25	Nitre, U. S. P., 4-lb bots.....	lb	58
SODIUM, 1-oz vials, M. C. W.....	oz	25	Nutmeg.	lb	75
Acetate, M. C. W., carton.....	lb	17	Pimento.	lb	65
Arseniate, 1-oz vials.....	oz	9	Rosemary.	lb	65
Arsenite, 1-oz vials, M. C. W.....	oz	10	STEARIN	lb	20
Benzoate, 1-oz vials, M. C. W.....	oz	11	STONE, Pumice, select.....	lb	10
Benzoate, 1-lb bots.	lb	56	Pumice, select, powd.....	lb	8-10
Benzoate, true fr. Gum Benzoin, Merck's.....	oz	29	Rotten	lb	12-15
Bicarbonate, C. P., powd., M. C. W.....	lb	15	Rotten, powd	lb	10
Bicarbonate, kegs, 3c.....	lb	4-5	Soap, cut	lb	18
Bisulphite, dry, pure, Merck's.....	lb	27	Soap, powd	lb	8
Borate, neutral, Merck's.....	oz	19	STRONTIUM, Bromide, cryst., M. C. W.....	oz	11
Bromide, M. C. W.	lb	35	Carbonate, M. C. W.....	lb	27
			Hypophosphite, M. C. W.....	oz	29
			Iodide, 1-oz vial, M. C. W.....	oz	30

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Lactate, Merck's	oz	16	TANNOFORM, Merck's	oz	22
Muriate, M. C. W.	lb	32	TANNOPINE	oz	75
Nitrate, pure, dried, Merck's	lb	59	Veterinary	oz	25
Salicylate, M. C. W.	lb	83	TAR, Barbadoes	lb.	25
Sulphate, M. C. W.	lb	69	Coal	gal	25
STYPTICIN, Merck's	oz	6 50	Pine, bulk	gal	40
STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.	oz	1 70	Pine, 1/2-lb cans	doz	75
Arsenate, 1/8-oz vials, M. C. W.	oz	1 70	Pine, 1-lb cans	doz	90
Bromide, 1/8-oz vials, M. C. W.	oz	1 70	Pine, 2-lb cans	doz	1 50
Citrate, 1/8-oz vials, M. C. W.	oz	1 70	Pine, gal cans	doz	6 00
Crystals, 1/8-oz vials, M. C. W.	oz	1 45	TARTAR EMETIC, M. C. W.	lb	54
Hypophosphite, 1/8-oz vials, M. C. W.	oz	1 95	TEREBENE, 1-lb bottles.	lb	79
Muriate, 1/8-oz vials, M. C. W.	oz	1 70	Merck's	oz	14
Nitrate, 1/8-oz vials, M. C. W.	oz	1 70	TERPIN HYDRATE, cryst., Merck's	oz	10
Phosphate, 1/8-oz vials, M. C. W.	oz	1 80	Pounds, Merck's	lb	60
Sulphate, 1/8-oz vials, M. C. W.	oz	1 40	TERPINOL, Liquid, Merck's	oz	47
Sulphate, 1-oz vials, M. C. W.	oz	1 20	THEOBROMINE, Alkaloid, Merck's	oz	90
Crystals, 1-oz vials	oz	90	And Sodium Salicylate, Merck's	oz	60
Crystals, in bulk	oz	85	THIOL, dry	oz	1 00
Powdered, in bulk	oz	80	Liquid.	oz	40
Powdered, 1/8-oz vials	oz	1 05	THYMOL, 1-oz vials, Merck's	oz	25
Powdered, 1-oz vials	oz	85	Pounds	lb	2 90
STYRAX, liquid, ...	lb	60	THYROIDIN, Merck's	oz	1 30
SUGAR, burnt	lb	25	TIN, Chloride, Merck's	lb	53
Grape.	lb	25	Metallic, feathered	lb	1 00
Milk, crystals	lb	30	Muriate, solution	lb	35
Milk, powd., bulk	lb	23	Oxide, white, pure, Merck's	lb	99
Milk, powd., M.C.W., 1-lb cartons	lb	25	TINCTURE, Aconite Leaves	lb	65
SULFONAL, 1-oz vials	oz	1 35	Aconite Root	lb	75
SULPHON-ETHYL-METHANE	oz	60	Aconite Root, Fleming's	lb	90
SULPHON-METHANE	oz	50	Aloes	lb	65
SULPHUR, California, ground, 110-lb bags	lb	2	Aloes and Myrrh	lb	65
Flowers	lb	5	Arnica	lb	65
Flowers, in bags	lb	2 3/4-3	Asafoetida	lb	65
Iodide, Merck's	oz	38	Belladonna	lb	65
Lac., precip.	lb	18	Benzoin	lb	75
Roll, bbl.	lb	2 3/4-5	Benzoin, comp.	lb	75
Sicily, ground.	lb	5	Blood Root	lb	65
Strips	lb	15	Buchu	lb	65
Washed	lb	15	Cantharides	lb	75
SUMAC.	lb	10	Capsicum	lb	65
SYRUP, Ginger, U. S. P.	lb	65	Cardamom	lb	75
Hydriodic Acid	lb	70	Cardamom, comp.	lb	75
Iron Iodide	lb	65	Catechu, comp.	lb	75
Ipecac	lb	60	Cinchona, comp.	lb	75
Lactucarium	lb	1 00	Cinnamon	lb	65
Orange Peel	lb	65	Colchicum Root	lb	75
Rhubarb	lb	60	Colchicum Seed	lb	75
Rhubarb, Aromatic	lb	65	Columbo	lb	60
Rhubarb and Potash	lb	65	Conium	lb	65
Sarsaparilla	lb	65	Cubebs	lb	65
Sarsaparilla, comp.	lb	65	Digitalis	lb	65
Senna	lb	65	Ergot	lb	75
Senega, U. S. P.	lb	65	Ergot, ethereal	lb	80
Simple	lb	35	Galls	lb	60
Squill	lb	60	Gelsemium	lb	75
Squill, comp.	lb	60	Gentian	lb	60
Stillingia, comp.	lb	60	Gentian, comp.	lb	65
Tolu	lb	60	Ginger	lb	65
Wild Cherry	lb	60	Guaiac	lb	75
Yerba Santa comp.	lb	65	Guaiac, ammoniated	lb	75
TALCUM, powdered	lb	6-8	Guaiac, Dewees'	lb	75
Purified	lb	20-25	Hyoscyamus	lb	65
TAMARINDS, pound bottles	lb	25	Iodine.	lb	1 40
Keg	ea	4 50	Iodine, colorless.	lb	1 40
Pulp	lb	50	Iodine, comp.	lb	1 40
TANNALBIN.	oz	85	Iodine, Churchill's.	lb	1 75
TANNIN, 1-lb cartons, incl.	lb	85-90	Ipecac	lb	80
1-oz cartons, incl.	oz	12	Iron Acetate	lb	65
TANNIGEN	oz	75	Iron Chloride	lb	50

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Iron Citro-Chloride	lb	65	WAX, Bayberry	lb	45
Jalap	lb	65	Bees, yellow, refined.	lb	37-40
Kino	lb	75	Bees, yellow, oz.	lb	45
Lobelia	lb	60	Bees, white, extra.	lb	60
Lobelia, ethereal	lb	65	Bees, white, No. 1.	lb	55
Myrrh	lb	75	Bowdlear's 1-lb cartons	doz	4 20
Myrrh and Capsicum.....	lb	75	Fruit, can, red.....	lb	8
Nux Vomica	lb	65	Fruit, can, white	lb	8
Opium	lb	1 25	Japan	lb	18-20
Opium, camphorated	lb	60	WAX, FLOOR	lb	25-38
Opium, deodorized	lb	1 30	Johnson's, 1-lb cartons.....	doz	4 00
Orange Peel	lb	65	Johnson's, 1/4-lb cartons.....	doz	2 25
Quassia	lb	60	Johnson's, 1/4-lb cartons.....	doz	1 40
Rhatany	lb	60	WHITING, Gilders'	lb	3
Red Saunders	lb	65	Spanish	lb	2 1/2
Rhubarb	lb	65	WINE, Antimony	lb	65
Rhubarb, Aqueous	lb	60	Aromatic	lb	65
Rhubarb, Aromatic	lb	70	Colchicum Root	lb	75
Rhubarb, comp.....	lb	65	Colchicum Seed	lb	65
Rhubarb, Sweet	lb	65	Ergot	lb	1 25
Rhubarb and Aloes.....	lb	65	Ipecac	lb	1 25
Rhubarb and Senna.....	lb	65	WOOD, Brazil, ground.....	lb	10
Senna	lb	65	Camwood	lb	10
Senna, comp.....	lb	65	Fustic, cut	lb	3 1/2-5
Serpentaria	lb	65	Fustic, ground	lb	6
Stramonium Leaves	lb	65	Guaiac, rasped	lb	10
Stramonium Seed	lb	65	Hypernic.	lb	8-10
Strophanthus	lb	1 25	Logwood, chip.	lb	8-10
Tolu	lb	75	Logwood, ground.	lb	8-10
Valerian	lb	65	Nic.	lb	8-10
Valerian, ammoniated	lb	85	Quassia, chip.	lb	15
Veratrum Viride	lb	65	Quassia, ground.	lb	18
Warburg's	lb	1 75	Quassia, powdered.	lb	18
TRIKRESOL, S. & G.....	lb	60	Red Sanders, ground.	lb	12
TRIMETHYLAMINE, Merck's	oz	55	Red, cut.	lb	10
TRIONAL	oz	1 50	XANTHOXYLIN, Keith's	oz	1 13
TRIPOLI, bulk	lb	8-12	XYLOL	lb	70
TURPENTINE	gal	95	ZINC, Acetate, Merck's.....	lb	43
In case	gal	87	Acetate, 1-lb bottles, M. C. W.....	lb	43
Chian	oz	45	Benzoate, Merck's	oz	24
Venice	lb	35	Benzoate, 1-oz vials, M. C. W.....	oz	24
URANIUM, Acetate, 1-oz vials, Merck's...	oz	59	Carbolate, 1-oz vials, M. C. W.....	oz	24
Chloride, 1-oz vials, Merck's.....	oz	47	Carbonate, precipitate, 1-lb cartons.....	lb	25
Nitrate, 1-oz vials, Merck's.....	oz	45	Chloride, fused, 1-oz vials, Merck's.....	oz	13
Sulphate, 1-oz vials, Merck's.....	oz	47	Chloride, granulated, Merck's.....	lb	33
UROTROPIN	oz	60	Cyanide, 1-oz vials, M. C. W.....	oz	21
Tablets, 20 in box.....	box	25	Hypophosphite, 1-oz vials, Merck's.....	oz	29
UNGUENTUM CREDE, 1/2-oz jars.....	oz	90	Iodide, 1-oz vials, M. C. W.....	oz	37
URETHANE, Merck's	oz	54	Metallic, pure, feathered.....	lb	27
VANILLIN, 1-oz vials.....	oz	75	Oxide, English, Hubbuck's.	lb	50
VERATRINE, pure, 1/8-oz vials.....	oz	2 40	Oxide, pure, M.C.W.	lb	30
VERONAL, powd.....	oz	1 60	Permanganate, Merck's	oz	52
Tablets, 10c.	ea	30	Phosphate, M. C. W.....	oz	10
Tablets, 100s	ea	2 25	Phosphide, Merck's	oz	23
VERDIGRIS	lb	40	Sulphate, cryst.....	lb	8-10
Powdered	lb	45	Sulphate, cryst., chemically pure.....	lb	18
WATER, Cherry, Laurel.....	pt	50	Sulphide, 1-oz vials, M. C. W.....	oz	16
Chlorine	lb	40	Sulphocarbonate, M. C. W.....	lb	59
Distilled.	gal	8	Sulphocarbonate, 1-oz vials, M. C. W....	oz	11
Elder Flower	lb	50	Sulphate, H. P., Merck's.....	lb	15
Orange Flower, triple.....	lb	35	Sulphate, dried, H. P., Merck's.....	lb	25
Orange Flower	gal	2 00	Sulphocarbonate, Merck's	oz	11
Orange Flower, Chiris, small.....	doz	2 00			
Orange Flower, Chiris, large.....	doz	3 75			
Rose, triple	lb	40			
Rose	gal	2 00			
Rose, Chiris, 6 3/4-gal coppers.....	gal	1 75			
Rose, Chiris, small.....	doz	2 00			
Rose, Chiris, large.....	doz	4 00			

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Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 1/2-gal. bots in case..	6 00	
Bartlett, 50 qt. bots. in case.....	8 00	2 25

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THE PACIFIC PHARMACIST

Bethesda, 50 qt. bots. in case.....	7 50	2 25	Londonderry Lithia, 100 pints.....	13 50	1 75
Bethesda, 12 ½-gal. bots. in case.....	5 50	.....	Poland, qts., 50 to case.....	9 00	2 50
Bythia Water	10 00	2 50	Rackoczy Kissengen .....	.....	5 00
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50	Red Raven Splits.	5 00	1 35
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75	Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50	Veronica .....	.....	5 50
Franz Joseph, 50 bots. in case.....	11 00	3 00	Vichy Water Celestine.....	10 00	3 00
Garrod Spa Lithia, pints.....	6 00	2 00	Risk of breakage is assumed by buyer.		
Garrod Spa, Lithia, ½-gal.....	.....	5 00	Villacabras Water, qts., 50 bots. in case	17 50	4 50
Hathorn, 48 pt. bots. in case.....	8 00	2 50	Witter, 36 bots in case.....	12 00	4 50
Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00	White Rock Splits.	9 90	1 20
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50	White Rock, pints	11 50	1 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50	White Rock, quarts.	8 85	2 25
Londonderry Lithia, ½ gallons.....	9 50	6 50	(Cash discount 5% on case prices White Rock.)		

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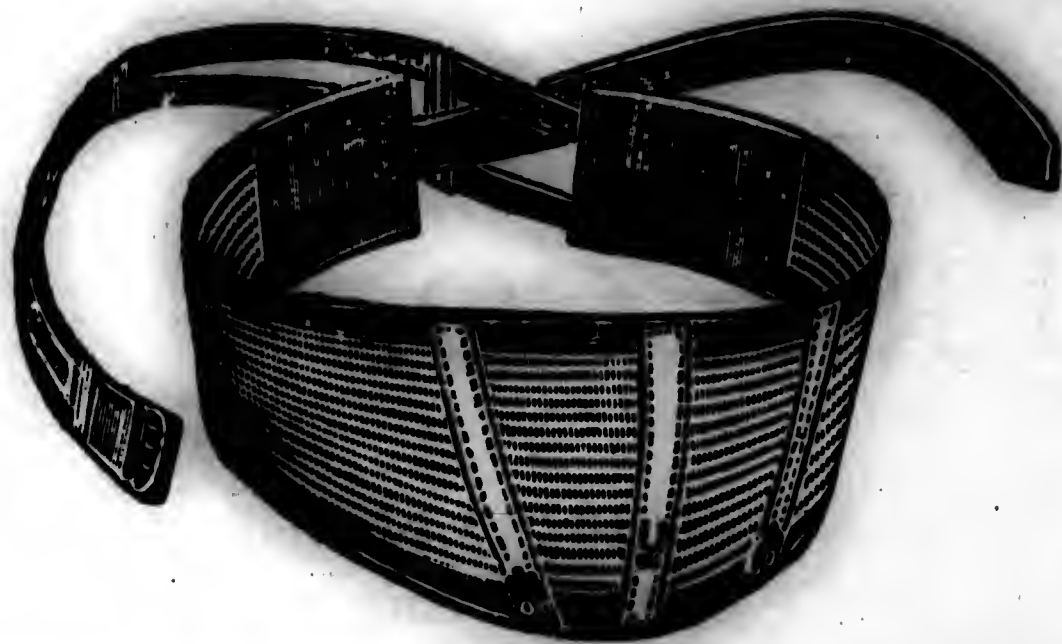
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VOL. 1

NOVEMBER, 1907

No. 7

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Wouldn't you appreciate it if they gave you an opportunity to show them that you could do the work just as well or better than it was being done for them?

That is what we ask you to do toward us. Let us demonstrate that our goods are right, as are also our business methods.

A square deal and a good word for the "Cutter Products" will be appreciated.

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and Specialties
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Serial No. 2254

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THE new Pure Food and Drugs Act requires all manufacturers to sell their products under a guaranty, and a general guaranty should be filed in the office of the Secretary of Agriculture at Washington.

The following is a copy of a letter issued from the Department of Agriculture to us:

DEPARTMENT OF AGRICULTURE
Office of the Secretary
WASHINGTON

November 1, 1906.

*The Antikamnia Chemical Company,
St. Louis, Mo.*

Gentlemen:—

Your guaranty as to the character of the materials manufactured and sold by you, given in accordance with Circular 21 of this office, has been received, found to be in proper form and is regularly filed. The serial number attached thereto is No. 10.

Respectfully,

W. M. HAYS, Act. Sec'y.

All Antikamnia Preparations are sold under this guaranty and our Serial No. 10 appears on every package sold under the new law, thus assuring the retail drug trade of the absolute reliability of these pharmaceuticals.

The Antikamnia Chemical Co., St. Louis, Mo., U.S.A.

THE Pacific Pharmacist

Official Organ of the California Pharmaceutical Association

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

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No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

**PLEASE NOTIFY THIS OFFICE IF YOU DO
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Editorial Notes

Died in The California Pharma-
Childbirth ceutical Society, the dear
old mother of the Cali-
fornia College of Pharmacy and of the
California Pharmacy and Poison
Laws, died in this city on November
14th, just as she was giving birth to
a more lusty and promising baby, the
California Pharmaceutical Association.
And no wonder. The old lady had for
16 years shown no sign of increasing
her family. In fact, many of her old
friends thought she was dead. But the
effort to bring forth a vigorous young-
ster, with 155 active members, was too
much for her. She (not her child)
"died a'bornin'." She left all her prop-

erty, her good will, her hopes, her am-
bitions, her brilliant prospects, her roll
of honor and \$77.00 in money to her
infant child. Requiescat in pace.

Association The California Phar-
Vice maceutical Society has
Society practically gone out of
existence, and the Cali-
fornia Pharmaceutical Association
has taken its place. This is not
a mere change of name, but of
administration also. The society
was incorporated under the State
law, which requires that the "prin-
cipal place of business" should be
stated in the articles of incorporation,

and there the annual meeting had to be held. This was not satisfactory to members residing in Los Angeles and other cities, who felt that the society, under that regulation, became almost unavoidably a local rather than a State institution. So the change was made to meet their views. The association will not incorporate, as it wishes to hold its meetings and transact its business in different parts of the State from year to year. The first annual meeting will be held next May. Where shall it be?

Druggists in Demand The demand for drug clerks in Kansas is so great that it threatens to affect the enrollment of the State University this year, greatly increasing the number of students in the pharmacy school of that institution.

"The most surprising thing to me about the enrollment is the increase in the pharmacy school," says Registrar Foster. "Last year there were 117 students in that school. According to the rule of growth that obtains here, the enrollment this year ought to be about 135 or 140, but the indications are that it will run from 150 to 200.

"The requirements for entrance to the pharmacy school are less than to any other school in the university," he continued. "The course can be completed in two years, which is a year shorter than the shortest other courses."—McPike's Monthly.

Druggists Working Overtime The ten-hour drug clerk law now under operation in California is being generally lived up to. But how about the proprietors? Some doubtless, as heretofore, work when they feel like it, and if they prefer to wear themselves out in their eagerness to catch the last nickel that is burning a hole in somebody's pocket near midnight, we do not need to sym-

pathize much with them. But there are some proprietors whose businesses are small, and who cannot afford to employ much clerical help, who have to spend weary hours in their stores long after nearly all other places of business have been closed. And, as if six days of this kind of enforced servitude were not enough, the same thing is allowed to go on on Sundays. Is this wise? Don't druggists lose in the long run by this practice? Many say they would like to see a change, but do not like to make it alone, or be the first to begin. Is it not strange that "in the land of the free and the home of the brave" nobody has the bravery to strike for freedom; like Macbeth, "letting 'I dare not' wait upon 'I would'?" Brother pharmacists, the present labor conditions call loudly for a change. Now is the time to make a beginning. Let there be a shortening of the day and a cutting in two of Sunday. Get together and plan for your own emancipation.

Getting an Education Without Help On another page, under the caption "How a Young Man Obtained a College Education without Going to College," we reprint a condensed autobiography of one of the foremost educators of this State, Mr. Elisha Brooks, who for thirteen years ably filled the position of principal of the San Francisco Girls' High School. During these thirteen years there were graduated from that school over 2,000 young ladies, hundreds of whom entered the University of California, Stanford University and other institutions of learning and culture, and many engaged in teaching and other professions.

Was It a College Education? It may be said that Mr. Brooks did not obtain a college education, because that is impossible without living

the college life. This is admitted. It is doubtless true that Mr. Brooks did miss some of the benefits of the college atmosphere. He did not enjoy many of the pleasant experiences and stimulating associations of the university, nor did he carry with him through life the memories, the friendships, the *esprit de corps*, the traditions of those glorious days when the spirits were buoyant and the outlook roseate. But he did obtain the knowledge, the culture, the mental endowment that are usually secured by a college course, though he was denied the advantages of teachers, equipment, and all that goes with a college curriculum, to say nothing of the stimulus of numbers and good fellowship and the inspiration of a large student body.

Difficulties and Hardship The short account which we publish of Mr. Brooks's struggles to get an education is tame in comparison with the thrilling incidents of his crossing the plains in the early fifties at eleven years of age, with his mother and two or three younger brothers. They wanted to join the father in California, and not having the means to come from Michigan to California by way of New York and Panama, they started to cross the Rocky Mountains and the more dangerous plains. In spite of all dangers and difficulties, backsets and hardships, **they got there.** So, when he wanted a college education, being unable to go to college he resolutely went to work and, in due time, **he got it.** Let no young man in California, with a healthy body and a sound mind say he cannot get an education, academic, professional or technical. He can, if he is willing to pay the price—the price of sustained self-denying effort.

Grit Will Win San Francisco is being built up rapidly and substantially under unheard-of difficulties. Our men of affairs are "doing things." This is no time for weaklings. Let our young would-be pharmacists emulate the same spirit, and if it is not easy to obtain a pharmaceutical education, let them face hardships, strive after the best, **and get it.** *Perseverantia omnia vincit.*

The Transmissibility of Bovine Tuberculosis Medical authorities are still divided as to whether cattle tuberculosis can be transmitted to human beings. While waiting for a final decision on this subject it is well to refuse milk from tuberculous cows. It would be criminal to take any chances or to expose infants and children to a possible infection from such a source. Don't feed children with milk from diseased cattle.

Tax on Fireworks The editor of the *Journal of the American Medical Association* suggests that a 50% internal revenue tax should be placed on Fourth of July fireworks, the income from such revenue to be devoted to medical research. To this we give our most hearty approval. Thus medical science would be furthered and at the same time a more sane method of Fourth of July celebration would be established. We believe in raising the tax so high as to make the insanely idiotic Fourth of July firework celebration impossible. To such a pass have things come that the sober, rational American citizen dreads the approach of the Fourth of July as much as he does a pest invasion. In this connection we might also mention the idiotically criminal Hallowe'en practices, which should be forcibly suppressed.

Have We Struck Bed-Rock?

For some years there has been a scarcity of drug clerks, and at times a falling off in the attendance at the schools of pharmacy. The two events are probably due to the same cause—a feeling that the compensations of pharmacists were inadequate to the demands made upon them. But a change has taken place, and is still going on. Salaries are higher, hours are shorter, and now the colleges are reporting a larger attendance.

The Pharmaceutical Era of October 10, says:

The fall term of the **New York College of Pharmacy** opened last week under unusually good auspices. The junior class is expected to be the largest in the history of the college. A recapitulation of the students follows: Seniors, 81; juniors, 130; food and drug analysts, 16; post-graduates, 4; total, 231.

Fifteen students have been refused admittance to the **Pharmaceutical Department of the University of Minnesota** on account of lack of room. Only freshmen applying for admission were refused, and only those whose entrance requirements were not quite sufficient were turned away. Dean Wulling says the department is so crowded that it is almost impossible to take another student. The department might possibly have found room for the rejected fifteen if they had been fully up in the requirements. Many were deficient in high-school credits and their certificates were not accepted. In former years similar instances have occurred and the student was admitted and compelled to take extra work outside the department to make up his entrance credits. The lack of room in the college of pharmacy has made it impossible to follow the same course this year.

It seems as if we had struck bed-rock. Pharmacy has been demoralized of late years. Cut-rates have forced some to do business without a compensating profit, necessitating a cutting down of expenses, salaries along with the rest. But we appear to have touched bottom. The public under-

stand the cut-rate bait and don't bite so readily. Some never enter a drug store over which is the sign "Cut Rates." They look upon it as a public acknowledgment by the proprietor of his consciousness of his low standing as a pharmacist. The public are being educated to expect to pay a fair price for goods that bear the stamp of honesty, and for services that require knowledge and skill. The exposures by the lay press have helped this good work. Pharmacists are getting tired of pulling chestnuts out of the fire for others, and are selling more of their own goods. So they can pay better salaries. **It does not pay to give a clerk a hundred dollars a month to sell patents at cost.** Then there is a strong movement for shorter hours for clerks, meaning, ultimately, if not immediately, earlier closing on week days and partial closing on Sundays. The outlook for young druggists is better, and more of them are going to college. So the wheel revolves. May there be such a revolution, sure if slow, as will give us better educated and better paid pharmacists, apprentices, clerks, proprietors,—all deserving and enjoying the confidence and respect of the community.

The N. A. R. D. and Dr. Rusby — N. A. R. D. "Notes" does not like Dr. Rusby's remarks at the A. Ph. A. meeting in New York. He is reported to have said:

"The effort of the N. A. R. D. to uphold and sanctify the patent medicine has failed absolutely."

"Notes" reports thus: "We defy Dr. Rusby or anybody else to point to a single utterance of an N. A. R. D. convention, or any of its officers, in which an attempt is made to establish the 'sanctity' of patent medicines."

We can only surmise what Dr. Rusby meant by "sanctify" in connection with patent medicines; but if he meant that an effort had been made to put these articles where they could not be ruthlessly assailed by the unregenerate cutter, he was about right. But if his idea was that the N. A. R. D. had given patent medicines so much moral support as to encourage its members in advertising and pushing their sale, we think he was wrong. At the present time patent medicines are a necessity and an evil. The American people, not the ignorant only, but all classes, to a great extent demand them. Some proprietors of these remedies are not conscientious and others are visionary. Such persons more or less greatly exaggerate the virtues of their wares. This is an evil, and as it deals with the health as well as the pocket, is often a dangerous one. These proprietaries are now more than ever being put on trial. The time may come when to a limited extent they may be sold with advantage to the public, but that will not be until the exploiters of them content themselves with truthful statements as to their medicinal or hygienic value. Will that time ever come?

Opsonic Progress Medical and other journals are publishing numerous reports on opsonins in health and disease. The indications are that opsonic index determinations in disease, and the use of some bacterial vaccins, will soon be in general medical use. As the result of the recent investigations along this line the use of Koch's tuberculin has again come into prominence. Koch was near Wright's discovery some years ago. He just missed adding another great discovery to his already marvelous achievements.

Extermination of Rats and Rat Fleas It is reported that the Board of Health of San Francisco is making strenuous efforts to exterminate rats and mice which are the carriers and disseminators of the bubonic plague, and other diseases also. We hope that this report is well founded. According to the Montreal Pharmaceutical Journal, rats and rat fleas are the chief disseminators of the plague in Bombay. Every one is satisfied that rats should be exterminated, but how can this be done? There is upon the market an organic (microbic) rat and mice virus known as azoa (Parke Davis & Co.) which transmits a fatal disease to these animals. This disease is not communicable to other animals. It is reported that it does its work very effectually. If true, it is an ideal remedy and does away with the use of the dangerous arsenical remedies. Arsenical rat pastes, powders and biscuits are a source of constant danger if kept in a place where children are. We understand that the San Francisco Board of Health is putting azoa to a thorough test. Unfortunately azoa does not kill rat fleas. There is an opportunity for some one to discover a fatal epidemical flea disease which will exterminate all of the fleas in California. A monument will be erected to the discoverer's memory in Golden Gate Park and multitudes will worship at his shrine for generations to come. Let the bugologists of California get busy.

Ether—U. S. P. The government permission to employ, since September 1, 1907, denatured alcohol in the manufacture of ether has materially reduced the cost of this important article without the slightest deterioration in quality. The Powers-Weightman - Rosengarten Company

call attention, in their current price list, to their well-known Ether—U. S. P., especially prepared for anesthesia, and equally indicated for any other medicinal requirement. All jobbers can supply this well-known brand at the new price.

A Wise Step The idea of inviting the State Board of Pharmacy to meet the druggists of Alameda County and discuss, over the festive board, the manner of enforcing the new **Poison and Pure Food** laws was a politic one. The banquet at Oakland on the 22d ulto. is sure to be productive of good. The board could not fail to be impressed with the fact that the pharmacists of the "other side of the bay" wish to live up to these laws themselves, and to see them generally enforced, not in an oppressive manner, but with moderation and fairness. On the other hand, the members of the State Board expressed their purpose to administer the law in the interest of public safety, and without unnecessary interference with the legitimate business of pharmacists. All of which is in the direction of the true democratic principle of "government by consent of the governed," always assuming that the governed want only what is right.

Get the Best Tools It almost goes without saying that the readers of **The Pacific Pharmacist** use the best tools they can get. That is why they subscribe for this journal. It is the best (for them) that they can find.

Wanted, to complete files of subscribers, copies of **The Pacific Pharmacist** for August.

San Francisco's Future

In common with the great majority of citizens who have no axes to grind, we rejoice in the result of the municipal election, just held. It retains in power an incorruptible Mayor and Board of Supervisors, and gives us other county officials of the very highest integrity. It insures a continuation of the graft prosecutions, which have already secured the conviction of some of our rich transgressors, and have held up to public scorn others who are probably no less guilty. We want no innocent man condemned, but we do believe that for years our officials have been bribed again and again into giving away municipal privileges without adequate compensation to the city, and it is high time this iniquity should stop. San Francisco's vote of November 5 voiced her opinion on this subject, and of the men who have for a few months had charge of her affairs. Let the good work of municipal purification go on.

The citizens of San Francisco have demonstrated that they prefer a clean, honest government. The result is of more than local interest. It may well serve as a lesson to other cities that are still in the hands of corrupt grafters.

As the result of the election, confidence is restored. The laboring class has learned that in the end it is not benefitted by placing in power ignorant, corrupt and selfish leaders. The victory was won through the votes of the rank and file, the active producers.

Business of all kinds will receive a new impetus and prosperity will reign. May an honest confidence-inspiring administration continue for a long time.

A. PH. A. CONVENTION

Hot Springs, Ark., September 7, 1908.

CALIFORNIA PHARMACEUTICAL SOCIETY*

Report of the President

The first annual meeting of this Society was held in the year 1869. If the meetings had been held regularly from that time to the present, this would have been the 38th, but as the organization has been inactive for over 15 years, we can only regard the present gathering as celebrating the opening of the 38th year of its existence. It is somewhat remarkable that the last time our members got together was one of the best meetings we ever had, and yet after that we were never, until the past few months, able to secure a quorum. The members last met at Los Angeles in May, 1892, three whole days being occupied by the business presented, closing with a banquet in the Westminster Hotel. Up to that time the Society was a power. It had lively meetings, practical papers and profitable discussions. Beside this it carefully watched legislation and frustrated such as was detrimental to pharmacists. But about that time some of the older workers removed from the State, others died, others found themselves occupied with the work of administering the new pharmacy law, and with the new buildings for the California College of Pharmacy. Thus the very advance that pharmacy was making drew so heavily upon the attention of many of its most active friends that the California Pharmaceutical Society was left without the fostering care of those who had in former years sustained and succored it. Thus it has come to pass that for nearly 16 years the Society has been taking a Rip Van Winkle sleep, and now that a few of its friends, old and new, remembering the good work it once did, and realiz-

ing the possibilities of still greater usefulness in the future have united to revive its dormant powers and set them in motion, let us consider the conditions existing in the pharmaceutical world that we may see why this Society should be kept alive, and what there is for it to do.

I. The Indianapolis decision, which somewhat stunned us at first, has led us to review the whole business of dealing in proprietaries and goods manufactured by others. Strangely enough, it carried me back to the year 1860, when I first landed on this Coast. I recalled the surprise I then felt at noticing that the larger proportion of ready-made preparations sold in drug stores were not made by us, but by people a long way off who were exploiting us. I had been accustomed to making almost everything we sold, except a very small number of "patents," nearly all of them medicines. I saw that conditions were different, and that to some extent it was more advantageous to buy them to manufacture, but I could see that the pharmacists of the Pacific Coast were easily exploited by the proprietors, because they were following the line of least resistance. It was easier to buy than to manufacture. Modern conditions have made it still more so. But our indolence has robbed us of our birth-right. I say "indolence," because it is nothing else, when a pharmacist will not take the trouble first to make a good preparation and then to push it. Our dry goods, department and clothing stores do not long keep in their employ salesmen who always sell the goods that are easiest to sell. Many of them pay a premium on those that

* Read at the Thirty-eighth Annual Meeting, San Francisco, November 14, 1907.

are hardest. We have so long fallen into the easy way of handing out ready-made goods of every kind that we have brought about conditions that cannot readily be dealt with. We have become the slaves of others. If we are wise we shall let the Indianapolis decision strike the first blow for our freedom. How shall this be done? I venture to offer a few suggestions.

(a) In regard to goods and preparations already on the market, there is not much that can be done. I do not believe in substitution, and would always give a customer what he asks for, without comment, unless I thought he was buying something really injurious to him or he asked my opinion. Then I would be honest with him.

But in regard to new goods and preparations, I think we should make a stand against being used to introduce them. You have in your store now two or three brands of pepsin. A drummer comes and offers you inducements to stock another. Don't do it. It only compels you to carry more stock to do the same volume of business. Meanwhile your old stock remains on your shelves and does not improve by age. The same policy should be adopted with regard to new lines of perfumes, soaps, toilet articles, fancy goods, elixirs, pills, etc. Every new line adds to the capital employed in your business and to the dead stock you carry. If a new line of really better goods is offered, take it, but cut out as fast as possible the old lines that are inferior. Most dry goods stores that handle perfumes and soaps carry only those of one maker. They buy these in liberal quantities and get the best rates. They do not have much capital invested in these goods, and make money on what they have. A druggist carries a dozen lines, has to buy in small quantities, paying more for his goods

and making less profit. Who is the wise man?

(b) Neither the windows nor any other part of the store should be used to display proprietaries of any kind, the prices of which are not protected by the manufacturer. I doubt whether it is good policy to assist in advertising anybody's wares but your own, but circumstances sometimes justify it. Yet, remember, the selling of your own goods is your main business. Is it good policy to build up a trade in what competes with your own?

You are in business as pharmacists; make more of pharmacy and less of the patent medicine business. To this end you need the California Pharmaceutical Society, the American Pharmaceutical Association, and the best pharmaceutical literature. You need contact with other pharmacists, chemists, botanists, pharmacologists and physicians. This Society will help you if you will help it. Take an active part in its meetings and you will derive **great benefit** and receive **many suggestive ideas**. At the same time you will surely help others.

This Society should be kept alive, therefore, in order that it may help the pharmacists of California to do the best for themselves, to keep them alert in pharmaceutical matters.

(c) But this Society is also needed that it may watch legislation affecting pharmacy and be prepared to present organized opposition to such as is likely to be detrimental. We have now a good poison law, a good pure drug law, and, with the exception of a few particulars in which it might be improved, a good pharmacy law. We have a Board of Pharmacy that is making every effort to enforce the pharmacy law, and doubtless will, when the time comes, enforce the poison law. The pharmacists of the State should have an influence on the administration of

these and all other laws that affect pharmacists, that no injustice may be done to those who are not wilful offenders.

(d) In many parts of this country efforts are being made to shorten the hours of business in drug stores, and to close most of the day on Sunday. This is a subject worthy of serious consideration. It can hardly be questioned that in the aggregate the drug trade is losing money by the excessively long hours of its business day. The man who works intently for eight or ten hours a day will make more money for himself or his employer than if he spread his energies over two or three additional hours. In the latter case he slowly, though imperceptibly to himself, becomes a machine if not a drone. The times demand alertness, and no man can keep himself keyed up to the high pitch required if he works every day until nearly worn out. He may not die, he may not even get sick, from this prolonged servitude, but he loses the brightness and buoyancy that contribute to his success in business. Most of the Sunday work in drug stores is quite unnecessary, and could easily be reduced one-half if druggists would get together and agree upon some plan that would help them and not inconvenience the public. This Society cannot make rules in this matter, which has to be dealt with according to local conditions. But it can and ought to exert its influence in inducing its members to favorably consider any feasible plan for lessening the strain upon themselves and their employes by the present long-drawn out drug store day.

I have endeavored to show that, at least for these reasons, the pharmacists of this State need to be organized for scientific culture, for trade betterment, for legislative protection, and for concerted action in whatever may make

"for the good of the order." The California Pharmaceutical Society is capable of doing much in all these directions, and can do more when its membership shall include the bulk of druggists of the State, and I trust you will admit that I ask very little when I beg of each person already a member to work persistently until he has induced every live pharmacist in his town to become a member of the State Society.

Your attention will be called to the Pacific Coast Pharmaceutical Association. I hope you will give it careful consideration. We can certainly learn something from our brethren in the North, and it is to be hoped we can give something to them in return. For years, while we have been dead—no, asleep—they have been wide awake and keeping up active organizations in Oregon and Washington. It will surely do us good to meet them once in three years, and I hope you will appoint a committee to arrange for such a meeting.

In two and a half years the Pharmacopœial Convention will convene in Washington to arrange the work of again revising the U. S. Pharmacopœia. I shall be disappointed if by that time this great State of California does not, through its Pharmaceutical Society, undertake some work that will be helpful to the Committee of Revision, and through them to the general cause of pharmacy. We need first to get well organized for our own State work. This will fit us to enter upon the larger work to which we have contributed but little for nearly two decades.

Our By-Laws call for two meetings each year, one to be held in San Francisco in November and the other in some interior city or town during the spring or early summer. If no invitations come to us at this meeting, I suggest that the Board of Trustees be

instructed to take steps at an early date to arrange for the summer semi-annual meeting, and that the time and place of meeting be duly announced as soon as practicable. In connection

with this matter I suggest that a Membership Committee be appointed for the purpose of enlisting the active interest of the great majority of the pharmacists of the State in our Society.

WHAT TOOLS DO YOU WORK WITH?*

By W. M. Searby

It is to be presumed that every person here today is trying to get the best tools he can for his work. That is one reason why he has become a member of this society. He wants all the help he can obtain, and that includes the best tools and the latest patterns. But have you looked carefully all round your store, your laboratory, your prescription room, your office, your store-room? Are your prescription filing, your bookkeeping, your advertising all up-to-date?

Improvements When a modern corporation buys a manufacturing plant, the first thing the managers do is to carefully inspect the whole concern to see whether everything is so operated as to secure the largest result for the expenditure of labor, time and money. Improvements are commonly made in machinery and management with a view to effect a saving in labor, time and fuel—everything that costs, to increase the output, improve the quality, add to the sales, obtain quicker returns, lessen expenses, prevent losses; in short, by one or many betterments to increase the net profits of the business.

Poor Tools Costly If you engage a carpenter and set him to work with a rusty old saw, a blunt hatchet, a plane with edge chipped, and other tools in similar con-

dition, he will tell you at the outset, if he is honest, that if you expect him to earn his wages and avoid spoiling good lumber you had better get some new tools. Are you sure you are not doing the same thing in some department of your business?

Have You a Pharmacopœia? Don't be hurt, my good friend, that I ask you this question.

Of course you have a pharmacopœia, but some druggists have not. I found this out one day when (away from home) I visited three drug stores in search of a pharmacopœia and could not find one. One said, "Well, no, I haven't; I must get one." Another said, "No-o, I haven't one yet. I have been thinking for a long time of getting one, but I've been busy and forgot it." The third said, "No-o, I haven't one here. I keep mine at my house." I interviewed these three persons all in the same forenoon and all spoke apologetically, which, under the circumstances, I thought was a good sign. So, since there are some pharmacists who have not found time or money or something to buy a U. S. Pharmacopœia, will you who have one and are using it and know its value, tell any of those misguided ones whom you may meet to get one right away and show him that it is the best and most convenient laboratory manual, the best text-book, the best purity and quality standard he can have, and

* Read at the Annual Meeting of the California Pharmaceutical Society, San Francisco, November, 1907.

that a drug store and druggist without a pharmacopœia are like a church and parson without a bible, and tell him to get one "quick," will you please?

Scales, Weights and Measures A good pair of prescription or counter scales will last many years, if used and kept with proper care. A few months of hard usage may render them almost unfit for use. Have you tested yours lately? Or do you leave them to the care, or want of it, of a slovenly clerk? Are your prescription balances as sensitive as they ought to be? Are your weights clean and the sets complete? Have you ever had them tested? Many of the cheaper weights are grossly inaccurate, and some graduated measures equally so. These should be tested occasionally, and so should your thermometers. Do you use the metric weights and measures? Or do you still "convert"?

Other Apparatus and Implements Since the fire of 1906 many new drug stores have been fitted up in San Francisco, some of them being attractive and costly. In making plans for these, some proprietors have shown commendable foresight in providing adequate facilities, both for manufacturing and dispensing, but this cannot be said of all. It is surprising how many persons exercise cheeseparing economy in fitting up the prescription department and laboratory, while spending money lavishly over mirrors, soda fountain, etc., largely for display. Some persons will spend four or five thousand dollars in fitting up a store, will pay freely for prescription and counter scales, which are to a certain extent showy, who will hesitate to pay fifty or a hundred dollars for an ample supply of weights, graduates, test-tubes, thermometers and the necessary ap-

paratus for uranalysis and pharmaceutical testing and a like amount for laboratory machinery. In order to do the best work without waste of time or material, it is cheapest, if not always necessary, to get the best tools, and this applies to the drug store as well as to the machine shop. In preparing to do business we should plan to economize time, and it is a good investment to buy a few of the simpler machines used in pharmacy, such as suppository moulds, tablet machines, mixers, sifters, etc. These not only save time, but enable us to turn out better looking and more uniform products, and this counts a good deal in the reputation of a pharmacist.

Other Books No pharmacy is properly fitted up without some works of reference. The United States and foreign pharmacopœias, the National Formulary, a dispensatory, a chemistry, treatises on pharmacy, materia medica, uranalysis, pharmaceutical assaying, etc., according to the ability of the manager to use them, should be on hand. The buyer needs price-lists, catalogues, etc., in addition to his own cost and stock book.

Clerks I will not at this time pursue the subject far enough to inquire into the method of filing prescriptions, keeping accounts, taking care of stock, etc. The system in all of these may be of the best. The store may be elegantly fitted up, the laboratory and dispensing room well appointed, and yet success may be a long way off. Expensive machinery (and an elegantly fitted up drug store belongs to this category) should be operated by skilled workmen. What if the proprietor or clerk, or both, are unskilled in the use of these appoint-

ments? What if their appearance, their dress, their manners, their language, their bearing, are repulsive to customers? However attractive the store may be, these objectionable features will repel more customers than the elegant store will attract. In the matter of clerks, therefore, as of all

other adjuncts to a successful pharmacy, we say, "get the best—men or women—of ability, integrity, culture, refinement, tact, and, withal, sober and industrious." With a well-appointed, well-stocked, well-managed store as your set of tools, and such persons to use them, you ought to succeed.

A LITTLE MORE ON PHARMACEUTICAL EDUCATION

By Albert Schneider.

The following letter was received from Whilhelm Bodeman:

TO THE EDITOR: Have just perused Schneider's paper on Education. Permit me to ask for more information. How can a State Board Examiner tell what "one or more years of high school" means? I am not speaking of isolated cases, but of a class by itself. Time and again did candidates present high school diplomas, and in the examination had to admit that they could not divide $1\frac{1}{2}$ grains by 30. Now, then, should a man ever so learned be admitted to the practice of pharmacy that is as full-fledged an arithmetical cripple as that? I finally concluded that we had to disregard all diplomas, and we did, and found out the candidate's caliber ourselves.

Mind you, this applies to a raft, not an isolated case. W. B.

Would state in reply that the State Board of Pharmacy knows as well what "one or more years of high school" means as do regents of universities or deans of professional schools. It is known in a general way that a graduate from a reputable high school is intellectually better qualified to take up scientific work and to enter into professional and other work than is the man who does not have this preparation, **other things being equal**. A boy may in some way get through high school and not be able to "divide $1\frac{1}{2}$ grains by 30," but he is certainly the exception and not the rule. It appears a waste of time to attempt to prove that the higher education cripples and disqualifies, because the entire evidence shows the reverse to be true.

Again, why should State Boards of Pharmacy be better able to pass on the intellectual qualifications of a man or a woman? The State Board sees the candidate for a few hours or a few days. What evidence can the State Board get within that time as to the candidate's mental caliber, integrity, sobriety, and general aptitude for performing the duties of a pharmacist? It would certainly appear reasonable to assume that a faculty of a reputable college would be better qualified to pass upon such fitness, because they have the candidate under their almost constant observation for about two years. It is a fact that college graduates make better and abler pharmacists than do non-graduates, **other things being equal**. It is a fact that the college graduate who has a high school preparation makes a better and abler pharmacist than the one who does not have a high school preparation, **other things being equal**.

There has been great demand for school-teachers this summer all over California, and as a result salaries have been increased materially in all parts of the State, but without achieving the desired result of filling the requirements.

Fresno is shipping from sixty to one hundred tons of figs a day, and these shipments are not keeping pace with the packing of the crop.

HOW A YOUNG MAN OBTAINED A COLLEGE EDUCATION WITHOUT GOING TO COLLEGE

The subject of the following sketch was for nearly 40 years one of the foremost educators in San Francisco. In the face of difficulties and privations which the youth of these days know nothing about, Elisha Brooks, for 13 years principal of the Girls' High School in this city obtained his education. We do not want our boys or girls to undergo the same trials, but we do want them to have the same thirst for education and the same grit and perseverance, if these should be necessary to obtain it.

The Girls' High School Journal, from which this story is taken, says:

"At our persistent entreaties the modest array of facts first given to us by Mr. Brooks has been expanded into the following sketch of his life, rewritten, however, under protest by him, because of the personal pronoun being necessarily much in evidence."

Editor of the Girls' High School Journal: In compliance with your request, I submit the following outline:

I was born in the backwoods of Michigan, where my first eleven years were spent as "the boy on the farm." I attended school there in the little log schoolhouse for about three months in the year, from the age of eight to eleven years, and reached the third reader stage of development.

With my mother and brothers, I then crossed the plains at the age of eleven to rejoin my father in California, driving an ox-team a great part of the way. The first eleven years in California were spent in the mines of Butte County, in the vicinity of Bidwell's Bar. During the first five years of this period I was engaged in the milk business and in herding cattle, rising at



ELISHA BROOKS

3:00 o'clock in the morning and retiring at 9:00 o'clock at night, doing part of my sleeping on horseback. Exposure to all the storms that raged in those long waking hours was exceedingly trying at times.

At the age of seventeen I began to realize my savagery and ignorance, and asked permission to attend a school just started in Oroville, ten miles distant. Being given freedom to shift for myself, I managed, by mining, chopping wood, and teaming, to get together enough money to carry me through a six months' term. I kept "bach" (that is, did my own cooking and housekeeping in a miner's style) in a little cabin at Oroville while attending school, and helped out my meager finances by hunting game night and morning, and by gathering bou-

quets of wild flowers, which I sold in the shops.

At the close of the term I returned to the mines, where, by similar work, I made in the next six months enough money to give me another half-year term under the same teacher, Mr. Burlingame. During this period the teacher, my brother and I "bached" together, and I was able to complete the grammar school course, studying in addition, in my leisure hours, astronomy, botany and physics.

In the next six months my brother and I succeeded in laying by the goodly sum of eighty-two dollars, with which we paid our passage to Healdsburg and supported ourselves, with the help of odd jobs, through a half-year's course at the Healdsburg Academy.

In this Academy the students were going at the usual easy pace in classes and by grades, but as time with me meant money, and money was extremely limited, I was given free rein. So by keeping early hours, rising at four in the morning, I "went through" algebra, including Davie's Bourdon, plane and solid geometry, and trigonometry, two books of Harkness's Latin, Quackenbos's Philosophy, and the required course in history and English literature.

At the close of this term we had five dollars and twenty-five cents left, and were two hundred and fifty miles from home. One of our schoolmates, just starting with a team for Washoe, in Nevada, carried our box of books to Sacramento for two dollars and a half, while we took to the woods, living on the game we shot on the way, and sleeping at night in the lee of some rock or tree.

On arriving at Sacramento we were hungry for bread, and bought a loaf for twenty-five cents, which furnished our supper and breakfast, while a hay-

loft served as our bed, through the kindness of the stableman where our schoolmate put up his team.

The next morning we took the river boat for Marysville, paying two dollars and a half, our last cent, for our passage. This was a bit of extravagance that we should have avoided by walking, but we had no other way of getting our books home.

At noon my brother was looking with longing eyes into the cook's galley, when he was offered a job of wood-chopping for his dinner. The offer was promptly accepted, and he said that dinner was the best he had ever eaten. When he had finished it the cook told him to bring me in, for I looked hungry. The temptation to sell my independence for a mess of pottage never came so near overpowering me as it did when I heard that dinner described, but with a mighty effort I said, "No, I have not earned it," and declined with thanks. How I did wish before night that I had not been so proud, because that butterless bread had tasted so dry, and that loaf had not been built for two such wolfish creatures as we were at that time.

By great good fortune, we met an acquaintance at the landing at Marysville from the vicinity of our home, who forced a loan of fifty cents upon us and took our box of books in his wagon to the end of our journey. How this debt weighed on our consciences until it was paid, for it was our first. One-half of this loan was spent for my supper—and it was great—while the other half was spent for a second loaf of bread that furnished our breakfast and dinner next day. Our bed was again a hay-mow, and a forty-mile tramp on the morrow found us at home again, weary and footsore, but glad.

I was very anxious to go to college.

but there was none west of the Rocky Mountains, and it would cost a thousand dollars to reach Harvard or Yale on the Atlantic Coast by water, or a three-thousand-mile tramp by land, as no railroads spanned the continent in those days. I might as well reach for the moon as for a thousand dollars—and to retrace my steps across those plains and deserts and through the civilized East, with only my gun and salt to provide my living—this alternative made me pause. The memory of the perils and hardships of that journey, eight years before, was too fresh to let this thought beguile me; though I confess that it did haunt me for some years. A boy of sterner stuff might have made the trip, but the chances are that he would have perished by the way; and he would probably have found the college doors in those days closed against him as a penniless adventurer, should he even be so fortunate as to reach them.

I now realized that these three terms of schooling had brought me only to the shore of a vast sea of knowledge, unvexed by any oar of mine, and since the Eastern colleges with their culture were beyond my reach, I spent all my spare money in books over which I burned—not the “midnight oil,” because I had none—but pine-knots or pine-cones for a light in the watches of the night, while my daylight hours were devoted to hunting the where-withal.

After two years of teaching the district school of our neighborhood, I felt impelled to back up my brave words in behalf of our bleeding country in the throes of a civil war, by shouldering a musket and marching out to her defense.

At the close of the war I re-entered the ranks of the profession of teaching, and took up as my life-work the

preparation of others for the colleges whose doors the Fates had closed against myself. Seven and a half years were devoted to this work in the Urban Academy of San Francisco, and for the last twenty-nine years I have been associated with the public schools of this city, with the rare fortune of not having a single day's absence recorded against me in that time.

In resigning my position in the Girls' High School, I shall carry with me many cherished memories of the twelve busy and happy years that I have spent here as your principal, and the welfare and progress of this school shall ever be of supreme interest to me in my retirement.

The care-free days of my youth have ever been beckoning me back to the wilds, calling to me from the mountains and the forest retreats, and in answer to this call I expect soon to retire “from the madding crowd” to a quiet nook where I can spend my declining years “near to Nature's heart.”

ELISHA BROOKS.

PENCIL CEDAR GETTING SCARCE.

Where do all the lead pencils come from—320,000,000 of them a year? Mostly from red cedar, which is almost indispensable for the purpose, since no substitute for it has yet been found possessing all the necessary qualities. Pencil cedar is the only wood which is always sold by the pound, and it is getting scarcer while the demand for pencils increases rapidly. Measures to increase its growth are being taken by the United States Forest Service, but that will take time, and meanwhile the situation becomes more acute. A fortune awaits the man who shall hit upon a satisfactory substitute. Inventors, get busy!

THE GOSPEL OF GOOD HEALTH

The leaves of the tree, rather than the fruit, were for the healing of disease. The leaves represent that which is incidental, a kind of by-product. The main business of the tree was to produce fruit; it bore fruit every month—"all manner of fruit." But incidental to its main purpose, thrown in as you might say, there is a further ministry to good health—"the leaves of the tree are for the healing of the nations."

I wish to make this distinction clear at the outset, because in all our communities there are groups of religiously disposed people who make physical healing the central object of their interest. They talk about it, think about it, write about it incessantly. And in doing this they narrow down their religious interest to the business of raising leaves. When the judgment day comes it is to be feared many of them will have "nothing but leaves" to show, for the reason that they have slighted the weightier matters of useful and unselfish service in their zeal to "demonstrate" their ability to keep these perishable bodies in good trim. To do this is unduly to exalt that which is incidental and make it central.

* * * * *

Under the blind leadership of certain fanatics, many people have been led to feel that if they undertook to exercise faith in God's power to heal directly, they were estopped from using any material remedies. This is all nonsense. The Almighty is not so touchy as to withhold his spiritual aid, because the patient is also using some material remedy which He Himself created for the use of his children. Those narrow-minded people ought not to think that God is altogether such an one as themselves!

But we are told, with an air of

finality, that there is no record that Jesus ever used drugs. That is true—there is no record that He ever did. There is no record that He ever used an elevator or a telephone, but he would be a foolish man who would insist upon climbing the stairs to the top of a high building or doing his errands on foot because Jesus never used an elevator or a telephone. Sometimes a drug, which God made and men have learned to use, will accomplish a certain result more easily and quickly than it could be accomplished (if indeed it could be accomplished at all) by purely mental and spiritual forces. He would be a foolish man, indeed, who would lightly decline its help.

And the very people who declaim so loudly against the use of drugs in time of sickness, all use soap. Soap is a drug; it is sold at the drug store; its action is chemical. If a person were given plenty of hot water and time enough, he could wash his hands, his face or his clothing clean, without soap, but it can be done more quickly and easily with soap; and for that reason all sensible people use this drug we call soap. The very people who become so agitated over the use of drugs in healing disease, constantly use soap without realizing, apparently, how very funny they are making themselves by their inconsistency. * * * * *

Have faith then in God, with no fear whatsoever that you are discrediting your faith in Him by employing all those useful aids which He has created and appointed for our benefit! Have faith in God, and gather to yourself all the mighty aid which you can claim out of the Unseen for your perfect restoration! If you could each one form the habit of going about with those familiar words from the twenty-third psalm on your lips, in your mind, deeply imbedded in your heart,—“I will fear

no evil for Thou art with me!"—I do not say it would enable you to lie down with rattlesnakes or to drink water out of a malarial swamp unhurt, but it would add to your prospects for good health, in some cases thirty, in some sixty and in some a hundred fold. Pitch your expectation high—look for the best, hope for the best, strive for the best and according to your faith be it unto you!

Take these gospel ingredients, right thoughts, high expectations, firm resolution, faith in God! Mix them together, shake them well, use them freely! You need not measure them out narrowly with a drop tube or a teaspoon—there is nothing in them which will hurt you—take as much of them as you can contain. They will do you good and only good. I do not offer them as an infallible panacea for all the ills there are—I am not crazy either. We cannot, even with these aids, banish all suffering, disease and death. One whose right thoughts, high expectations, firm resolution and faith in God, utterly transcended anything we can hope to attain in this present world, suffered. "He learned obedience by the things that He suffered," the Bible says. If any enthusiast in His presence had claimed that there was "no reality in sin, sickness, disease or death," He would have regarded such an one as not altogether in his right mind. When wicked men drove nails through His feet and hands, and when they pierced His side with a spear, He suffered and died. In like manner if you are overtaken by cruel accident, or if you are loaded down with more work and care and necessary anxiety than you have strength to bear, you will suffer and it may be you will incur some painful illness. And the time will come when we shall all suffer and die. I make no unreal or extravagant claims then for this gos-

pel of good health, but I know from the Word of God, from long years of experience, and from wide observation, that right thoughts, high expectations, firm resolution and faith in God are for our health, they are leaves on the tree of life, and they may be used for the healing of nations.—Rev. Chas. R. Brown, in **The Pacific**.

ANTI-MEDICAL FANATICISM

We note the frequent vaporings of ignorant and misguided cranks who rail against the use of medicines and who declare that we get sick because we do not obey the "laws of nature," or because we do not lead a "righteous Christian life," or because "we live unhygienically." They urge giving up medicines, rail against vaccination, against the use of antitoxin, and, in fact, are opposed to nearly all modern methods. Such fanatics as these declare they would rather die of small-pox than permit themselves to be vaccinated, and perhaps it would be better for all concerned that they should die, for then they would not hinder progress. Such fanatics boldly declare that vaccination and the use of antitoxin are wholly without good results and that they poison the system, all of which are rank misstatements.

It does appear a waste of time to say anything about these cranks, but it will not do to let them go without a reprimand, as otherwise they become emboldened and actively seek to destroy the slowly accumulating results of science. We feel certain that the anxious mother who notes the marked improvement in her sick child after one dose of diphtheria antitoxin does not belong to the above class. It may be that the mother was indirectly responsible for the sickness of her child by permitting it to attend the crowded public school, but she certainly did not

want her child to be sick, and when it was stricken she certainly desired it to become well again, as soon as possible. The doctor's work is to assist nature in restoring the child to health.

Dr. Hurty, in an address before the Indiana Pharmaceutical Association, said: "Nature cures the disease by our permitting her to do it. We live in the open air night and day; we eat plain wholesome food; we lead a plain, regular life. What will cure will prevent, and therefore we know that the consumptive has not lived hygienically. The law of his well-being has been violated. As with consumption, so it is with coughs, colds, pneumonia and other respiratory diseases. They are the results of irregularities. They never were cured by medicines and never can be. When we get well of them, being attacked, it is because we have modified our environment and because they are self-limited; that is, we throw them off on account of the tendency of nature to come right side up if permitted to." All intelligent physicians believe in and preach preventive medicines and better hygiene, but until the time comes when we can or will live properly, we need the aid of the physician, and when we are desperately sick we want him badly, and we want him to apply the most approved methods of treatment. We can hardly trust to nature to set a broken arm, leg, rib or collar bone. Nature is not very handy at modern antiseptic surgery. The painful past has demonstrated that nature does not handle plague invasions very successfully. No amount of hygienic living will prevent a possible exposure to measles, mumps, smallpox, scarlatina and diphtheria. The festive disease-bearing flea or mosquito does not inquire into your mode of living before inoculating you with the plague, with yellow fever, with malaria and with sleeping sickness.

Let the railers against modern medicine direct their exuberant energies in constructing better homes and in establishing better sanitation. —S.

A SIMPLE WAY OF MIXING BENZOIN, GLYCERIN AND ROSE WATER*

By Valentine Schmidt.

The above mixture is used very extensively as a household remedy for chapped skin and toilet purposes. Consequently every druggist is called upon to mix it in various proportions several times a day.

We frequently listen to complaints from customers who have bought the same mixture in different pharmacies to the effect that it was badly mixed (as they call it), and seldom twice alike, and complimenting us upon our way of doing it.

Some years ago when I had the same trouble, I made some experiments and found that a stable mixture can be made in the simplest way possible, with the same result in various proportions of the ingredients.

We will take the following mixture as an example, although other proportions will work equally well. Take

Glycerin	1 ounce
Benzoin	1½ drachms
Rose Water	to 4 ounces

Mix the glycerin and rose water in a bottle, shaking it well. Then pour the tincture of benzoin very slowly and carefully on the top of the mixture, cork it, take the bottle by the neck, and invert it once or twice slowly without shaking it. The result is a perfectly white emulsion, without separation or conglomeration of resin, and perfectly stable.

The same process holds good with all resinous tinctures, such as tincture of myrrh and others.

*Read at the Annual Meeting of the California Pharmaceutical Society, November 14, 1907.

PHARMACIST VS. PHYSICIAN*

By Fred I. Lackenbach

It is evident from the discussion before the American Pharmaceutical Association at the recent annual meeting, that conditions on the Pacific Coast differ materially from those of other sections of the country, as pertains to both general education and the relations between the pharmacist and physician.

These two matters are closely related in my mind as bearing jointly upon the subject of this paper, and I desire to make it clear that my remarks apply particularly to conditions as they exist in the State of California.

In the paper submitted by Dr. Wall at the A. Ph. A. meeting, as quoted from Science, July, 1907, there attended the universities of California during the year 1906-07 186 students for every 100,000 of California's population, showing the highest university attendance of any State in the Union.

Massachusetts, with its boasted culture, shows a university attendance of 139 students per 100,000 of population, while New York falls short of the one-hundred mark.

Of the fifty States and Territories represented, but seven show a university attendance of one hundred and over, while 36 of the number range from 50 downward.

In view of these statistics, should California's educational institutions be unduly influenced by the attitude of those 43 States and Territories whose educational status bears no comparison with our own?

From a personal acquaintance with a number of families of very moderate means, I can concur with Elisha

Brooks in that no child in California need be without a high school education, or its equivalent, and if he is made of the right stuff, regardless of material obstacles, he can wiggle into the highest honors the university can bestow upon him.

The strongest point in favor of our high school system is the age consideration. The average youth finishes his grammar school course at about the age of fourteen; at this age he is too young to enter upon his life work, let alone know for what nature has best fitted him. If the drug store apprenticeship were what it should be, a youth who was obliged to leave school at that early age might enter upon the study of pharmacy, but the drug store apprenticeship has fallen into disrepute; it rarely fosters in the youth a high regard for his profession, and it is in a large measure responsible for the deep inroads commercialism has made into the profession and science of pharmacy.

A youth of fourteen is too young for admittance to the college of pharmacy, so what better can we offer to tide him over those most formative years intervening between childhood and manhood than the high school course?

The curriculum of the high school is far from being what it should be. Any person of intelligence who has supervised at home the work of the high school student will agree that more common sense, less pedantry and fewer fads would greatly enhance the value of the high school course, but these things are incidental and will adjust themselves in due course of time.

The Conference of Pharmaceutical

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Faculties compromised the matter of pre-requisite high school graduation by requiring of matriculants one year's high school work, or its equivalent, exempting those States that could not conveniently meet this requirement.

With all the discussion upon this matter, and the relations between the pharmacist and the physician, the whole controversy revolves itself in my mind upon the one point: **increased matriculation requirements.**

High school graduation, or its equivalent, is a positive necessity, not as a future consideration, but an immediate need for the advancement of ethical pharmacy.

So long as the educational requirements of the pharmacist are out of all proportion to those of the physician; so long will there be an insurmountable barrier to social equality between the two callings.

So long as college matriculation calls for little more than does the business college or technical school, and graduation is subordinate to the State Board of Pharmacy, so long will the college degree be devoid of any special significance.

So long as the pharmacist neglects the technical training of the apprentice, placing his calling on a par with labor unionism, and subordinating his professional dignity to the small and petty practices of the common tradesman, so long will the public regard him with indifference.

It is manifestly useless for the pharmacist to make any pretensions to professional dignity, so long as any person of mediocre attainment can, by a more or less perfunctory service in a drug store, attain to the rank of Licentiate in Pharmacy.

Without increased educational requirements, there can be advanced no ethical standards that will check the

inroads of the physician upon the legitimate profits of the pharmacist, and the professed good-will on the part of the medical man is but a subterfuge to evade the discussion of the real issues involved.

The pharmacist's one hope of establishing and promoting his professional identity is **the pharmaceutical society.** It stands pre-eminently above all kindred organizations in its potentiality for good, and its influence should be promoted with all possible earnestness.

Through no other medium can ethical standards in pharmacy be maintained and the spirit of brotherhood developed.

The physician has an organization that wields tremendous influence in the legislative chamber. The pharmacist, through lack of organization, looks to the physician for his support in pharmaceutical legislation.

In consideration of this support he is willing to give the physician what he wants and he takes what the physician is willing he shall get.

Cannot the A. M. A. afford to be magnanimous in its offer to co-operate with the pharmacist in matters legislative?

The pharmacist, through lack of adequate organization, is the target for all manner of oppressive legislation.

Commercialism is no less a power in the ranks of medicine than it is in the ranks of pharmacy, but through organization the physician has established a code of ethics that holds the great body together. Without ethics a professional organization is a nonentity. Herein lies the secret of the power wielded by the American Medical Association.

The time was never so ripe for the pharmacists of the country to assert themselves and elevate their calling to a position of distinction worthy of re-

spect. And right here in California is the place of all places for the pharmacist to distinguish himself. In no section of the country can the cause of pharmacy be elevated with less danger to established institutions. With California at the summit as an educational center; with the State Pharmaceutical Society coming to renewed life; with the president of the American Pharmaceutical Association active in our midst, and the Federal Pure Food and Drugs Act opening up unlimited possibilities, why cannot we take the initiative and establish a high-

water mark for pharmaceutical education?

The pharmacists here assembled represent the cream of California's pharmaceutical genius. If they with one accord will place themselves on record as favoring higher educational and ethical standards, it will give the movement an impetus that will make itself felt to the shores of Maine.

Let each and every man put his shoulder to the wheel and usher in a new era; an era of moral and intellectual activity unparalleled in the history of pharmacy.

SUPPOSIN' *

(Terpin Hydrate Elixirs)

By H. D. Morgan, Ph. C.

You have, no doubt, many times heard the story of "Supposin'." Supposin' you have or supposin' you haven't, it's all the same when it comes to pharmacy.

Now "supposin'" a prescription comes into your store calling for elixir of terpin hydrate and codeine sulfate. Nothing exceptional in that, but "supposin'" you went to where you kept Jack Spratt & Co.'s elixirs—lo and behold, the bottle is empty! Then you look among your other elixirs and none there. You begin to feel queer, for the prescription is from Dr. Grouch, who knocks you and says just because you have the only store in town you feel you can carry just what you like.

Now you begin to wonder and fret: you look for the elixir of terpin hydrate, with the thought of adding codeine sulfate. There's no bottle at all, showing you've not carried it in stock. You suddenly start; there's the Dispensatory, a happy thought sure.

You read: "Elixir terpin hydrate and codeine is said to contain terpin hydrate, 1 grain; codeine, $\frac{1}{8}$ grain, to each fluid dram."

Fine—yes—no—but what on earth is the solvent? Aromatic elixir, you suppose, and away you go, only to find that you can't get it into solution. You heat it, and after a while it's dissolved. Oh, happy day, that was easy! You pass it out yet warm, with the chesty air that "I am he who can do it." In a while the customer returns with the color somewhat gone from his tired face. In a hoarse whisper, which shows plainly that he is worried, he says: "I gave her one dose, and when I went to give her the second I noticed all those little needles floating about in it. You didn't make a mistake, did you? Will it harm her?"

Now, Mr. Man, what are you going to do? Sure, you may cuss and blame the clerk who let the last of Spratt & Co.'s elixir go without putting it on the want book. What will that do for you now? Even your Dispensatory

* Read at the Meeting of the California Pharmaceutical Association, November 14, 1907.

has gone back on you. You look up the solubility of terpin hydrate and find that it is only sparingly soluble in water, but is soluble in 95% alcohol.

Looking up codeine, you find codeine soluble in alcohol, but sparingly soluble in water.

So far it looks good—BUT—the prescription and Spratt & Co.'s elixir say codeine sulfate. Codeine sulfate is soluble in water, but slightly soluble in alcohol. Here's the trouble.

"Supposin'" you make it of codeine and not codeine sulfate, and use all alcohol—you are making only an alcoholic solution, and when you give a patient one or two teaspoonfuls of 95% alcohol, what will it do if the patient isn't used to it? And since teaspoons are not all standard, you may give the patient two of the large kind. You begin to sweat and fret. In the meanwhile your customer waits.

You look at Spratt & Co.'s label to see what per cent of alcohol they use. Forty per cent, says the label. Well, that helps you. Away you go—you try all kinds of mixtures, alcohol and water, from one-third to four-fifths alcohol, but as soon as it is cold the crystals float about poking their thumbs to their noses at you. Then you try glycerine and alcohol, and glycerine, alcohol and water. If you're alone or rushed you are wasting time and money. All at once you get mad because the Dispensatory says the National Formulary has the formula, and you haven't any National Formulary. You stand off the customer while in haste you send for Elixir Spratt & Co. and with the same mail goes an order for a National Formulary.

Elixir of terpin hydrate, elixir of terpin hydrate and codeine, or elixir of terpin hydrate and heroin are easily made if one knows how. When I say

"if one knows how" I mean one who has a formula or who can from study and experience work out a formula. I have seen no less than six different elixirs for these same.

For many formulæ are so complicated to the untrained pharmacist or the one just beginning to make up his own preparations that it frightens him.

A formula to be of service must first be as simple as possible, and, second, be as inexpensive as is consistent to be commercial. The demand is increasing for simple, pleasant and not expensive preparations. When you can show your doctor that you can make as good a preparation as any one, he'll want yours every time. Because your preparation is constant, you can fill for six years a prescription the same as now.

Very true: anything is too much trouble for some. But we are in the scientific age and mustn't allow ourselves to become merely dispensers of the other fellow's goods. Elegant goods that you can back with your own reputation, goods that a customer doesn't have to say: "The last time you filled my prescription it tasted differently from this": these are what we should produce.

True, the traveler will tell you the merits of a standard preparation, and how much better the goods of his house are than the others: yet he is pumping you full of the same balloon juice you should peddle to your customer. He will tell you his house has experience and the chemists, and all that, and can make it cheaper and better than you. Take it from me, unless you use only an ounce a year, he is "filling" you. His house **can** make it cheaper than you, but doesn't figure on letting you have it at what it costs them. If your elixir costs you 35 cents a pound, not counting your work, you

are still ahead. Look up your jobbers' list on No. 1 elixir terpin hydrate and codeine and see if he doesn't want 65 cents per pound. You have earned 30 cents a pound for the few minutes' time used in a strictly pharmaceutical operation. Since money saved is profit, this is "easy money." When you mark your preparations as to cost, don't forget to take into account the price charged by your manufacturer. Aren't your preparations as good as his? True enough, when you take stock it isn't best to "stuff the ballot," and yet, supposin' you had to buy from the jobbers, how would you invoice this article? Is not your time spent on this preparation worth 30 cents a pound. If your neighbor likes to buy his elixir, show him where you are equal to the occasion and that you can make as good an elixir and as up to standard as any old drug joint and can sell it to him at the same price.

"Supposin'" you had fifty articles to make up each week, and we'll say you save \$15.00, the saving of 30 cents on each, wouldn't that help pay an extra clerk, if you should need him? Or would \$60.00 per month profit to buy you stogies or Budweiser suit you better? Making your own preparations and discounting your bills is "easy money."

Now, not long ago I received a credit memo sent us by mistake; the credit was for one pound tinct. arnica, U. S. P. Think of any man—a pharmacist, busy though he be—buying one pound tinct. arnica for 65 cents. Probably he sold it at cut rate—say, four ounces for 25 cents—getting \$1.00 for his one pound. It costs 65 cents, and how much for bottles, labels, corks and time for putting it up. Wouldn't it pay him to save 30 cents per pound?—it would. If it pays the other fellow, it would pay me to make

my own elixir of terpin hydrate. So, after working on about eighteen different combinations I found one elixir of terpin hydrate that even after reducing the temperature to 46 F. in an ice bath still remained transparent and without the presence of any crystals. Here are the formulæ I worked out for the three different elixirs:

Elixir Terpin Hydrate

Terpin hydrate	grs. 128
Glycerin	ozs. 8
Alcohol	ozs. 8

Dissolve the terpin hydrate in the glycerin by aid of heat, then add the alcohol gradually and mix.

By dissolving the terpin hydrate in the glycerin you lessen the loss of alcohol.

Elixir Terpin Hydrate and Codeine Sulfate

Terpin hydrate	grs. 128
Codeine sulfate	grs. 16
Glycerin	ozs. 8
Alcohol	ozs. 8

Dissolve terpin hydrate and codeine sulfate in the glycerin and add the alcohol. Use heat to dissolve the salts in the glycerin.

Elixir Terpin Hydrate and Heroin

Terpin hydrate	grs. 128
Heroin hydrochlor.	grs. $5\frac{1}{3}$
Glycerin	ozs. 8
Alcohol	ozs. $7\frac{1}{2}$
Tinct. vanilla	ozs. $\frac{1}{2}$

Dissolve the terpin and heroin in the glycerin. Add the tinct. of vanilla and alcohol. Heat must be used to dissolve the salts in the glycerin.

The reason for adding the tinct. vanilla is to somewhat change the color and materially change the flavor.

I do not at present have a copy of the National Formulary, though I have one en route. But as I remember,

the formula calls for alcohol, glycerin, syrup and solution of saccharin and spirit of orange peel.

I cannot say why the solution of saccharin is added. Glycerin and syrup surely would make it sweet enough.

These formulæ are easily put together, and in my own store I find them satisfactory.

I'm "supposin'" that you believe it worth saying 30 cents per pound on home-made goods.

THE OFFICIAL PROCESS FOR THE ASSAY OF FLUIDEXTRACT OF IPECAC

By Clarissa M. Roehr

The method for the assay of the fluidextract of ipecac, as given in the United States Pharmacopœia, has been severely criticised. In a recent number of the "American Journal of Pharmacy," Professor H. M. Gordin, one of the foremost authorities on alkaloidal chemistry, says: "Some of the assay methods of the United States Pharmacopœia are completely unworkable. The process, as given for the fluidextract of ipecac belongs to this class." Professors J. M. Francis and A. B. Lyons have expressed similar views on the official method.

The Pharmacopœia directs that 10 cc. of the fluidextract of ipecac be evaporated till freed from alcohol. When almost cool, 5 cc. of $\frac{N}{I}H_2SO_4$ V. S. are added. This liquid is filtered into a separator, the evaporating dish and filter being washed with two portions of distilled water, and these washings added to the separator. To the liquid in the separator, 20 cc. of ether are added and the liquid made alkaline with ammonia water. The ethereal layer is drawn off. The aqueous layer is extracted with two more portions of ether, and these solutions are added to the ethereal solution in the beaker. The

combined ethereal liquid is evaporated to dryness. The residue is dissolved in 10 cc. of $\frac{N}{IO}H_2SO_4$ V. S., five drops of hematoxylin test solution are added, and sufficient $\frac{N}{50}KOH$ V. S., to cause the yellow color of the solution to turn purple.

Upon hastily reading over the above process it seemed short and simple, but upon using it, many difficulties were encountered. When the evaporated fluidextract, freed from alcohol, was dissolved in the $\frac{N}{I}H_2SO_4$ V. S., a comparatively thick liquid resulted. This liquid could be filtered, but with difficulty; a large amount of insoluble matter remaining upon the filter. The subsequent washing with two portions of distilled water did not dissolve it. Upon the evaporation of the ethereal solution a considerable amount of inert matter remained. It is claimed that most alkaloids in the presence of impurities cannot be dried without being changed chemically. They very often become partially resinified, and then it is very difficult to dissolve them in dilute acid. Heat, in presence of free acid is known to injure many alkaloids.

Two fluidextracts were assayed by the official method; the one, an unassayed preparation, gave 1.146

* The work recorded in this paper was done in the chemical and pharmaceutical laboratories of the California College of Pharmacy, San Francisco.

grammes of alkaloid, the other, an assayed preparation, gave 1.324 grammes. This second liquid was marked of official strength; that is, in every 100 cc. there should be 1.75 grammes of alkaloid. Evidently the figures are low, and do not represent the amount of alkaloid present.

Professor Gordin suggested the use of the method given in the United States Pharmacopœia for the assay of the fluidextract of belladonna, the only difference being the use of a mixture of chloroform and ether, instead of chloroform alone.

Ten cc. of the fluidextract of ipecac were placed in a separator. Ten cc. of distilled water, 20 cc. of a mixture of three parts ether and one part chloroform were added, and some ammonia water to render the liquid alkaline. The ethereal liquid was drawn off. The aqueous solution was extracted twice more with the mixture of ether and chloroform. The combined solutions were shaken out with 8 cc. of $\frac{N}{1}$ H_2SO_4 V. S., and 20 cc. of distilled water. This extraction with acidulated water was repeated twice, as suggested by Dr. Gordin. The combined acid solutions were filtered into a second separator, to which 20 cc. of a mixture of chloroform and ether and 4 cc. of ammonia water had been added. The ethereal solution was drawn off, and the acid solution extracted with two more portions of the ether-chloroformic solution. The combined ethereal solutions were allowed to evaporate spontaneously. This residue was dissolved in 10 cc. of $\frac{N}{10}$ H_2SO_4 V. S. Upon titration with $\frac{N}{50}$ KOH V. S., hematoxylin being used as the indicator, the two samples of the fluidextract of ipecac gave 1.386 and 1.741 grammes respec-

tively. This process worked very well. One difficulty was the time required for the complete separation of the chloroformic and acid liquids. The results proved much higher than those obtained with the official method.

Professor Gordin's method was also tried. 20 cc. of the fluidextract were transferred to a separator; then shaken out with three successive portions of 30, 20, and 20 cc. of a mixture of two volumes of ether and one volume of petroleum ether. The liquid was made alkaline with a sufficient quantity of a ten per cent solution of sodium carbonate. This ethereal solution was filtered, and concentrated to about one-half. As it was impossible to obtain the separating funnel with a long goose-neck as suggested by Professor Gordin, an ordinary funnel was connected with a condenser, and this proved very satisfactory. The concentrated liquid was diluted with ether and then shaken out with 8 cc. of $\frac{N}{1}$ H_2SO_4 V. S. and 20 cc. of distilled water, three successive times. The separating funnel was washed twice with 10 cc. of water. The combined solutions were titrated with $\frac{N}{50}$ KOH V. S. and the titration gave 1.398 for the unassayed preparation, and 1.762 grammes for the assayed.

One great advantage over the other methods is avoiding the evaporation to dryness of the ethereal solution, and the use of fixed alkali carbonate instead of ammonia, in the separation of alkaloids from the aqueous solutions. It is claimed this method requires only a little more than two hours. My experience was that it required over three hours, but this matters very little if satisfactory results are obtained.

Professor A. B. Lyons, in his Handbook on the Assay of Drugs, gives a method for the assay of fluidextract of ipecac, which proved quite satisfactory.

Five cc. of the fluidextract was placed in a vial, 20 cc. of a mixture of chloroform, one volume, and ether, three volumes, and five drops of ammonia water were added. The liquids were separated, the ethereal liquid being poured into a second vial, containing 3 cc. of water and a few drops of ammonia water. The ethereal solution was separated and poured into a third vial. The liquid in vial I was again shaken out with 20 cc. of ether, and this ethereal solution poured into vial II and then into vial III, in which 3 cc. of 3% HCl. had been added. Vial I was again washed with 15 cc. of fresh ether. This removed the last traces of alkaloid. The ether was passed through vials II, III, IV, and lastly through vial V, containing 2 cc. of water. A few drops of the residual liquid were tested, after acidifying, with Mayer's reagent, to be positive that the alkaloids were completely extracted. The ethereal solution in III was allowed to separate, and was added to vial IV, in which 2 cc. of acidulated HCl water had been placed, 20 cc. of a mixture of one volume of chloroform and three volumes of ether, and a few drops of ammonia water were added. After separation, the ethereal liquid was transferred to vial III, containing the greater portion of the alkaloid in acid solution. Ammonia water was added, the vapor being tested with red litmus paper to be positive of an excess of ammonia. The ethereal solution was added to vial V, to which a few drops of ammonia had been added. The contents of vials IV and III were washed with several fresh portions of ether,

and the ether was passed into V. Then after complete separation, the ethereal liquid was poured into a beaker, allowed to evaporate spontaneously, dissolved in $\frac{N}{10}$ H₂SO₄ V. S. and titrated

with $\frac{N}{50}$ KOH V. S. By the above process the two fluidextracts gave 1.364 and 1.721 grammes of alkaloids respectively. The method seemed very much more complicated than Professor Gordin's method, and the results were not quite so satisfactory.

In conclusion, the fluidextract of ipecac may be assayed successfully either by the official process given for the assay of belladonna, by Professor Gordin's process, or by Professor Lyon's process, but not by the present official method. The best results have been obtained by using Gordin's method. Unfortunately the figures as attained by the different processes differed. This shows the necessity of some good official method which can be worked.

	Unassayed	Assayed
U. S. P. process.....	1.146	1.324
for Belladonna	1.386	1.741
Gordin's process	1.398	1.762
Lyon's	1.364	1.721

MANUFACTURER AND JOBBER MAY SELL OR REFUSE TO SELL

Justice Gaynor, sitting in the Appellate Division of the Supreme Court, has dismissed the suit of a tobacco jobber, who sued the American Tobacco Company, under the Donnelly Anti-Trust Law, for refusing to supply him with goods. The opinion of the Court is that any corporation or person may lawfully refuse to sell its goods to any one for any reason or for no reason. If, however, it should combine with other corporations or persons to do so, that would be a combination in restraint of trade and therefore unlawful.—Wall Street Journal, October 8, 1907.

ESTHETIC MEDICINAL PLANTS*

By R. G. Eccles, M. D., Brooklyn, N. Y.

In the olden times plants were chosen for medical use by what were called signatures. It was the belief of great numbers of people, at that time, that Nature had stamped upon every plant a mark by which its use to man could readily be identified. To this whimsical notion we still owe many of the popular names of a large number of plants, such as kidney-wort, liver-wort, hearts-ease, and eye-bright. Because of some fanciful resemblance to the kidney, the liver, the heart and the eye these plants were chosen, through the doctrine of signatures, to cure the various maladies which the respective organs, whose names they bore, happened to be suffering from. Yellow-flowered and yellow-juiced chelidonium majus was deemed excellent for jaundice, because of the color of its flowers and juice. Blood root (*Sanguinaria Canadensis*) was considered an excellent remedy for all blood diseases because its juice was red. Some of our people have not yet gotten rid of this superstition and so, in order to improve (?) woolen goods and make them medicinal, they must be dyed red. The blood being of a red color, must be benefitted, according to this kind of philosophy, by a red colored piece of flannel. The wild tomato first came into attention because its leaves had a fanciful resemblance to an ear, and so it was administered for deafness, and came to be known in Europe as "Jew's ear."

After this form of epidemic insanity had run its course, and all the chief herbs of the field had been tried as medicines, natural selection weeded out most of the useless and left, chiefly,

those with less or more therapeutic value to grace the pharmacopœias of the world. It has always seemed to me that so independent a thinker as Paracelsus would, on breaking away from the teachings of Galen, have adopted a more catholic view of the doctrine of signatures than he did. Instead of taking up with the superstitions of peasants, he could have broadened them into the principle that beauty of form and color in Nature was Nature's signature testifying to the divine effects of outdoor life and pure air. The grace and beauty of the entire plant world could have been called in as testimony in behalf of such a form of interpreting the old notion. People could have taught that pretty flowers, plucked by themselves, at the hour when diamond sparkling dew added further lustre to their grandeur, would, by mere proximity to their persons, enhance their health and increase their strength. To win the ill will of the doctors and pharmacists of his day, on the strength of a sillier superstition than the one he sought to overthrow, was but little to his credit. To have done so on the basis here proposed would have won for him undying renown among the wise of subsequent generations. Perhaps such an idea might not have worked so well for the advancement of materia medica, as it might have stopped the self-experimenting that led to our present knowledge of organic drugs. Had he had the slightest inkling of the modern knowledge as to how plants are fertilized he could have sent his followers on a new tack by telling them that bees, humming birds, butterflies and polychrome moths gained both health

* Written for the California Pharmaceutical Society.

and beauty by picking out the most handsome blossoms that nature can produce and seeking pollen and nectar therein. Had he know that the pollen is laden with enzymes and the nectar with tonics, he could have come abreast of twentieth century speculation regarding the efficacy of antitoxins and of their strange composition. This field, however, still lies fallow, so that the direct relationship between beauty and medicine has not been fully worked out. Bishop Berkeley's tar-water has led us up to the gorgeous anilin dyes, and their kindred medicinal products, such as phenacetin, acetanilid, antipyrine and salicylic acid, but we yet await the enterprising chemist who will lead the way from flower hues and flower pollen to opsonins, lysins and other such new-fangled remedies. In the meantime we must be content to accept the dictum of Emerson when he informs us that "Beauty is its own excuse for being." He would bar us from hunting utility by the trail of beauty; yet we must think that, somehow, there is a connecting path between them. To bee and butterfly beauty is very far from being its own excuse for being, and the gilded palaces, where rum and faro are served out, likewise seem to cast a different light on the subject than that the poet has given.

But I am diverging. My object in writing this paper was to give the results of observation, during a tour of the world, as to how much of the beauty of the vegetable world had contributed toward man's comfort, in aiding him in his battle against disease. Almost every other conceivable phase of our materia medica has been considered except this. The esthetic aspect appears to have been sadly neglected. It is to be hoped that this feeble beginning will lead others to try and

extend our knowledge along this line. The first surprise that met me in my research was the discovery that the most beautiful flowering plants in the world either contain no medicinal qualities of importance or man's neglect in studying them has overlooked such qualities of this kind as they may possess. That peerless and inexpressibly beautiful tree, the Poinciana regia, either bears no precious healing balm for human ills or our ignorance of its chemical structure permits that balm to go unrecognized and unused. All who have ever seen it concede to it the palm for gorgeousness and splendor. Its popular names of peacock flower, flamboyant tree, and forest flame, give but feeble expression to the overwhelming character of its grandeur, when seen for the first time by a native of the temperate zone. It is as large and as graceful in form as our finest elms, but, oh, what a difference in splendor! Its superbness of color, when in full bloom, beggars all description. It must be seen to be appreciated. India can well be proud of it, and yet some of the most beautiful specimens seen during our voyage were growing in our own Honolulu. Their stately symmetric forms were hung with thousands of long, dense racemes of brilliant scarlet, papilionaceous flowers. So closely were they packed upon the branches that no more than enough of the rich, complementary green of their leaves could be seen to relieve the vast mass from sameness. But while the pharmacist cannot boast of holding any stock from this emperor of trees, he can show that one that is near of kin, and almost as beautiful, does contribute to the goods he sells. The Cassia fistula is quite as stately, has an equally vast expanse of blossoms, its flowers, too, are butterfly shaped, the racemes are quite

as long and quite as dense, and it comes in as a close second for beauty with the Poinciana. It has been called the Indian laburnum by English residents of Hindustan, and while it does resemble in color, shape of leaf and shape of flower cluster the English laburnum, the latter is but a pigmy in comparison, not only as regards the size of tree, but also in the size of racemes and of blossoms. After the flowers of the *Cassia fistula* have disappeared and it hangs pendent with thousands of long, slim, dark-brown pods, it becomes, to American eyes, a veritable curiosity. Throughout India, the Straits Settlements, Egypt and Ceylon there are a number of kindred genera and species, to this, which though less handsome, can provide flowers quite pretty enough to form exquisite bouquets, fit for any drawing-room. Among these are *Cassia acutifolia*, from which we derive senna; *Tamarindus indica*, from which we get tamarind pulp; *Acacia Senegal*, our source of gum arabic; and *Acacia catechu*, that supplies our extract of cutch or catechu. While all these are fairly beautiful, they are far from having the beauty of pomegranate or of quassia. These two have exceedingly pretty flowers, of flaming scarlet. Many people, however, might prefer the less flaunting but still gracefully beautiful white blossoms of the orange, the lemon, the staranise, the tea, or the nux vomica. Then there are among the reds, pinks and purples such flowering trees as cinchona, clove, almond and cherry. The latter sometimes fades out to white, but the Japanese species is a marvel of gorgeous pink. There are many medicinal trees that, like camphor, cinnamon and walnut, have rather inconspicuous flowers. These we must pass with but brief notice. In leaving the trees and

coming to the shrubs, we cannot, of course, pass without saying a good word for our superb *Rosa centifolia*. Poets have sung its praises in many tongues and through many ages, and its splendor and sweetness are ever remembered by us. Although the pharmacist uses only its qualities of fragrance and mild astringency, it holds its place in his affections and in his pharmacopœia. Among the climbing shrubs that supply us with medicine, *Physostigma venenosum* has probably the most handsome flowers. While we can fairly say that they are pretty, they cannot be compared with that most gorgeous of all earthly climbing vines, the *Bougainvillea spectabilis*, with its deluge of magenta to crimson-colored bracts, surrounding its numerous, inconspicuous flowers, and sometimes covering trees or walls for hundreds of feet with one unbroken mass of beauty. Although a native of South America, it is common in India, Egypt, the Holy Land, Ceylon, the Straits Settlements, Java and the Hawaiian Islands. Wherever it will grow it has found a welcome, and in it the people of tropical climes have found "a thing of beauty that is a joy forever." It has even found its way, but in rather diminutive size, to the greenhouses* of our own country. The Calabar bean is the only one of the shrubby vines supplying medicinal substances that has conspicuous flowers, or any substitute for the same. The black pepper and the sarsaparilla are markedly plain. The vanilla, that approaches more nearly the fleshy stemmed type of vines, is always a disappointment to the tourist who sees it for the first time. The knowledge that it is an orchidaceous plant makes one expect that in seeing

* It grows out of doors in Golden Gate Park and some gardens in San Francisco, thriving when shaded from northerly winds.—(Ed.)

the vanilla he is going to see something fine. Our green-house orchids are usually such beautiful things, and even our cypripedium, that is likewise medicinal, is so handsome that it is no wonder there is disappointment on first seeing the vanilla. The traveler who is a botanist, however, is less likely to feel this disappointment, as he is likely to be acquainted with the habenarias and they, although orchidaceous plants, are no more handsome than the vanilla. Among all medicinal vines, the one that is undoubtedly the queen of beauty is the jalap. While a native of South America, it is cultivated in the compounds at Ootacamund, in the Nilgiri hills of Southern India. Its flowers are of the same shape as those of our common morning-glories, but in splendor as well as abundance of color, the jalap far excels the convolvulus. It might not display such beauty in any other region, but here it would become inconspicuous if it were not gorgeous, as it has in near proximity heliotropes 10 feet high and from 20 to 30 feet in circumference, with every branch laden with highly perfumed purple flowers. There, too, are grown verbenas covering 20 square feet of ground, as well as an abundance of blossom laden Hibiscus Hispaniola and Hibiscus cannabinus. Both are exceedingly beautiful, but the fringed petals of the former give it a grace that is unique and captivating. The latter is known as Indian hemp, because it supplies a fiber like hemp to the natives, but it is not at all related to the Indian Hemp of the Pharmacopœia. The flowers of the medicinal Indian hemp are markedly inconspicuous and "homely" in appearance.

Among the pronouncedly beautiful blossoms borne by medicinal herbs there can be named digitalis, aconite, poppy, pyrethrum, broom, tobacco,

iris, colchicum, crocus and viola. Doubtless many would place the lily of the valley, the cotton plant, the anemone and the geranium within this list while, following hard upon them for equal honors, come arnica, dandelion, curcuma, ginger, cardamum, matricaria, althea and celandine. Even lavender might demand a place in the same list, and whoever has seen a field of flax in full bloom in an Irish field would insist upon putting linum within this roll of honor. The wild achillea is almost pretty enough to call for honorable mention here, while its cultivated varieties would demand an earlier mention than this.

It is hard to fix a scale for beauty, since tastes differ so much. To the farmers of the Mississippi and Missouri valleys stramonium is a detestable weed, while to people not quite so familiar with it the corollas are deemed handsome. There are, however, flowers of the same genus that are exceedingly handsome. In the hills at Tosari, in the southeastern part of Java, one can travel for hours through banks of daturas that look at a distance like great masses of snow. They are covered completely with immense blossoms each of which is from 7 to 9 inches long and 5 to 6 inches across. An occasional flower is very much larger than this. Such a profusion of uncultivated beauty is rarely met with. We have referred to the beauty of a field of Irish flax, but to ride for days among thousands of acres of poppies, when they are all in full bloom, is a still more lovely sight. This is particularly so in the interior of China, when in the overland tour from Hankow to Peking. In the fields of central India, and also in those of Asia Minor, which the writer saw, the color was almost entirely white. In our Chinese tour, on the contrary, there were fields

of red, fields of white, fields of pink, and in a few fields mixed colors. In referring to white poppies I am reminded of the white dandelions of Manchuria and Korea. They grow all over the hills, where Japan and Russia fought for the supremacy of the Far East. To see this composite flower dotting the green sward of our homes is to have recalled to memory the crocus, and the colchicum doing the same, in central and southern Europe, down to the shores of the Mediterranean, while along the brooks and in damp places throughout the same region we are charmed with veratrum album and squill. Though not so handsome as many of those here named, it is, nevertheless, a pleasure to the pharmacist to meet such old friends in full-dress parade. In botanizing in Great Britain and northern France his interest is likely to centre on digitalis, broom, hyoscyamus and belladonna. When he reaches the Alps the Pyrenees or the Apennines, his principal quest will be for gentian, arnica and aconite. In Asia Minor and Palestine, while meeting with many of the medicinal plants seen in places already named, his hunt is likely to be for specimens of the original parents of the almond, the apricot, the peach and the pear. Along the Meander River he will be surprised at the abundance of the purple flowered licorice. In the Garden

of Gethsamene, at Jerusalem, the monks are likely to give the visitor specimens of lavender, marigold and rosemary as a suggestion that a monetary offering will not be rejected. In the "Street called Straight," in Damascus, Rosa Damascena bound up with other flowers is likely to be offered to travelers by a hawker, who, in order to direct attention to his wares, cries out in Arabic: "Appease your mother-in-law by buying for her a bouquet." It thus appears that the Oriental mother-in-law is as fond of flowers as is her Occidental sisters. To enumerate the plants of the tropics that the pharmaceutical botanist would delight in seeing would carry this paper into too great length. It is already evident from what has here been considered, that while the beauty of a pharmaceutical botanic garden, containing everything grown for medical use, might not be as handsome as one containing our most lovely floral treasures, it would be sufficiently gorgeous to tempt many a lay visitor on purely esthetic grounds. Let us hope that when men have mastered the mysteries of the lore of beauty as thoroughly as have the bees and the butterflies, they will have found that the treasures of health and the treasures of Nature's splendor are in close correlation with each other.

*MEDICINAL PLANTS OF THE PACIFIC COAST

By F. A. Weck.

On several occasions I have been asked to write a paper on the subject of the Medicinal Plants, indigenous to the Pacific Coast. I shall not undertake to go into the therapeutic or botanical analysis, but shall simply re-

* Read at the meeting of the California Pharmaceutical Association, November 14, 1907.

late my personal observations during the time I was employed in collecting and marketing these herbs. The most important of these are Cascara Sagrada bark, Yerba Santa, Berberis Aquifolium, Grindelia Robusta, Grindelia Squarrosa, Yerba Buena, Yerba

Rheuma and Manzanita leaves. I shall, however, devote my attention at this time entirely to Cascara Sagrada. There are probably a score or more who claim to be the original discoverers or introducers of the Cascara Sagrada bark. I do not claim to be either. In about 1872 I collected and made a shipment of Cascara Sagrada bark from Eureka, Humboldt Bay, to Tilden & Co., New Lebanon, New York. I had sent samples to Parke, Davis & Co., Detroit, Michigan, but they informed me that it was of no value to them and could not be used. My first information about Cascara Sagrada as a medicine came from an old lady (mid-wife) who used to make a decoction from the bark for her patients. She kept this a secret, but being a friendly customer of mine, she revealed the knowledge to me, stating that she learned of it from the Indians. I have obtained Cascara Sagrada bark from the counties of Monterey, Alameda, Napa, Marin, Sonoma, Mendocino, Humboldt and Del Norte, all in California; also from Coos Bay, Florence, Umpqua, Corvallis, and other localities in Oregon. In Monterey, Alameda and Napa Counties the plant growth is small, being about the size of the huckleberry or hazel bush. In Oregon the Cascara Segrada bark is called chitten bark. Here it is known as coffee bark or coffee berry bark, also bitter bark. This is from the fact that the fruit or berry contains two seeds semielliptic and almost identical with the coffee bean in form; the fruit and bark are bitter. The fruit when ripe is a dark blue color, almost black, and is about the size of a juniper berry. It is meaty and of a sweetish bitter taste, laxative in property but not used. In Sonoma and Mendocino Counties the growth is considerably larger, the further north the larger the growth. In

the vicinity of Fort Ross, Sonoma County, I found it in clusters of tall brush eight to twelve feet in height and also small trees six to eight inches in diameter. The bark in that locality is called pigeon berry bark and bear berry bark. The pigeons are very fond of the fruit and I was told that the meat of the pigeon becomes quite bitter during the berry season. The bear, also, feeds on the berries. In Humboldt and Del Norte Counties, the Cascara is a tree of varied dimensions, often developing a trunk to the thickness from one to even two feet in diameter. Here the fruit or berry has three seeds of almost a triangular form. Here the common name by which it is best known is dogwood bark (this, of course, is a misnomer), so called from the peculiar odor of the fresh bark. It is also called Indian bark, but this is not common. The largest shipments of late years have been from Oregon, the Oregon variety is much thicker and coarser than is the California bark. The time for collecting is usually from April or May to September, or later, according to the season and locality. The bark should be thoroughly dried in the sun, if it is not too hot, and protected from the fog and dampness. When dried in the shade the inner surface will be yellow; when dried in the sun, it will be tan color. If allowed to get damp, or wet while drying, it will turn dark or almost black on the inner surface. The bark taken from young trees, or the limbs of large trees, is the best in flavor and effect. The coarse, heavy bark taken from the trunk of large trees, contains more of the corky, inert matter. We may draw the comparison as between a piece of Ceylon cinnamon and a piece of China cassia bark. When I made my first shipment of Cascara Sagrada to Tilden & Co., New Lebanon, New York, it was

hardly known to the physician or pharmacist, and there was but little demand for it, but gradually its value as a medicine became known and adopted by the medical profession, so that now it is in almost universal use. Innumerable preparations are made by the manufacturing pharmacists for the convenience of the physician, and acceptable in taste and form to the patient. The patent medicine manufacturers have also found in it a boon in the preparation of pills, tablets, biters, dry and liquid liver regulators, etc. I have made shipments of Cascara Segrada bark and other botanical drugs to New Lebanon, New York, Phila-

delphia, Chicago, Cambridgeport, Detroit, Brooklyn, Boston, Montreal, Liverpool, London, Darmstadt, Dresden, and Hamburg. I may add here that I also made a shipment of **Eschscholtzia Californica** (the California wild poppy herb) to Europe, also to New York. I also collected for the local trade horehound, wormwood, spearmint, eucalyptus, California bay laurel, horsetail, mayweed, pine needles, pine buds, poison oak, linden leaves and flowers, mistletoe, mullein, plantain, yarrow, tansy, wild cucumber or man-in-the-ground root, angelica root, orange flowers, and others.

MEDICINAL AND POISONOUS PLANTS OF CALIFORNIA

By Albert Schneider, Ph. D.

Professor Economic Pharmaceutical Botany, Histology and Bacteriology in the California College of Pharmacy.

123. **Artemisia** species. Compositæ. Native and introduced species are common.

124. **Artemisia absinthium**. Wormwood. Compositæ.

Common garden herb. Well known medicinally. Herb used. Fifteen to twenty cents per pound. Oil, \$4.50 per pound.

125. **Artemisia californica**. Old man. Sage brush. Hill brush. Compositæ.

Leaves and branches have decided insecticide powers (H. H. Behr). Employed by the Mexicans as a popular cholera remedy. The Spanish-Californians regard it as a panacea for all ills. (Bot. Mex. Boun. Survey, Emory's Report, page 17, 1859.)

126. **Artemisia dracunculoides**. Compositæ. "Indian hair tonic."

The Indians use this plant as a hair tonic. It has not been examined as to its active properties. (Hall.)

127. **Artemisia frigida** Willd. Sierra

salvia. Colorado mountain sage. Compositæ.

Much used in the Rocky Mountain region as a diuretic, diaphoretic and mild cathartic. It perhaps contains a glucoside. (F. A. Weiss, Am. Pharm. Journ. 1890.)

128. **Artemisia heterophylla** Nutt. Mugwort. Wormwood. Compositæ.

One of the most popular of native medicinal herbs. A decoction of leaves is said to be a specific in colic and colds. On account of its efficacy in bronchitis it has received the name of "bronchitis plant." Indians use a decoction for stomach-ache, headache, diarrhoea, rheumatism, and fevers. Externally it is used for sore eyes. The juice is used to counteract poison oak. (Contrib. U. S. Natl. Herb. 7; No. III, 393.)

Other species as **A. bidentata**, **A. vulgaris californica**, have similar properties and uses. (Le Maout and Decaisne, p. 505.)

129. *Artemisia tridentata*. Sagebrush. Compositæ.

Said to be poisonous. Used by the Coahilla Indians in bowel complaints. (Barrows.) A decoction of the leaves used as a cough medicine. Very likely has diaphoretic and diuretic properties. (Am. Jour. Phar. 62, 1890.) (U. S. D.)

130. *Arundinaria* and *Bambusa* species. Bamboo. Gramineæ.

Extensively cultivated as ornamental plants. (Fairchild.)

131. *Arundo donax* L. Giant reed. Gramineæ.

Extensively cultivated as an ornamental plant. Roots are said to be diuretic. (Bailey, Cycl. Am. Hort., p. 102.)

132. *Asagraea officinalis*. Cevadilla. Cultivated. Poisonous. Used almost wholly to destroy head-lice and other body vermin. (U. S. D.)

133. *Asarum caudatum* Lindl. Wild ginger. Aristolochiaceæ.

Highly aromatic and would no doubt prove very useful in the manufacture of perfumeries and sachet powders. Two other species are reported, *A. hartwegi* and *A. lemmoni*. All require further study.

134. *Asclepias* species. Milkweeds.

These have the general properties of the Asclepiadaceæ and Apocynaceæ. The following species are native: *A. mexicana*, *A. speciosa*, *A. eriocarpa*, *A. vestita*, *A. cardifolia*, and *A. californica*. The Pacific Coast species have caused the poisoning of many heads of cattle. The poisonous principles require further study. The sticky juice of *A. eriocarpa* and other species is considered an excellent lotion for cuts and sores; to kill warts, and is used in tattooing. The Yokis eat the young shoots of *A. mexicana*. Other medicinal species are to be found escaped from cultivation or grown in the Berkeley and other economic gardens.

Indians make various uses of some of the milkweeds. The fiber is used for cordage. The milky juice is generally believed to be poisonous. *A. mexicana* has received considerable attention. *A. eriocarpa* is also poisonous and requires further study. (Contrib. U. S. Natl. Herb. 7: No. III, 380); (Calif. Geol. Surv. Bot. I: 474.)

135. *Asclepias californica* Greene. (*Gomphocarpus tomentosus*.) Milkweed.

Said to be poisonous to cattle. Found in pastures. (U. of C. Agr. Exp. Sta. Rep., p. 248, 1890.)

136. *Asclepias cornuti*. Milkweed. Asclepiadaceæ.

Well known medicinally. For commercial value of caoutchouc in *Asclepias cornuti*, see (Proc. A. Ph. A. (abs.) 23:157, 1875.)

137. *Asclepias mexicana*. Milkweed. Asclepiadaceæ.

Properties like those of *A. cornuti*. For fuller particulars see the following theses: (J. Temple, Jr., *Asclepias mexicana*. An examination of its constituents. Cal. College of Pharm., 1901, Thesis. A. W. Cochran and H. W. Armour. *Asclepias mexicana*, Milkweed. Cal. College of Pharm., 1902, Thesis. F. W. Nish. *Asclepias mexicana*, Milkweed. Cal. College of Pharm., 1901, Thesis.)

138. *Asclepias speciosa* Torr. Showy milkweed. Asclepiadaceæ.

Said to be poisonous. Used medicinally like other species. Cultivated as an ornamental plant.

139. *Asclepias tuberosa* L. and other species have been introduced.

(J. D. Elliott, *Asclepias tuberosa*, Pleurisy Root, Butterfly Weed. Cal. College of Pharm., 1902. Thesis.)

140. *Asimina triloba* Dun. Common paw paw. Anonaceæ.

Fruit edible, resembling the banana.

Readily cultivated, ornamental. (Proc. A. Ph. A. (abs.) 35: 148, 1887.)

141. *Asparagus officinalis* L. Asparagus. Liliaceæ.

Escaped from cultivation. Extensively cultivated in low lands. The rhizome is said to be laxative and diuretic and to act as a heart sedative. Very likely of little or no medicinal value.

142. *Aspidium filix mas.* Male fern. Filices.

Does not do well in cultivation. Root decoction is used for soreness and bruises. Well known medicinally. An old-time reliable vermifuge. (See Text-books and Dispensatories.)

143. *Aspidium (Dryopteris) rigidum argutum.* Yerba del Golfe. Filices.

A decoction from the roots is used for the treatment of bruises and contusions.

144. *Aster puniceus* L. Aster. Compositæ.

The rootlets of this ornamental plant are employed as a stimulating diaphoretic in rheumatic and catarrhal troubles. Numerous native and cultivated species found in the State.

145. *Astragalus* species. Loco weeds. Papilionaceæ.

Many, not all, species of *Astragalus* are poisonous. *Aragallus* and *Astragalus* species are much confused. The following are the more important poisonous species from the State: *A. hornii*, Gray, *A. lentiginosus fremontii*, *A. leucopsis*, *A. menziesii*, *A. martoni* Nutt. Coahilla and other California Indians eat the seeds. (Barrows.)

146. *Astragalus blankinshipi* Nels. Purple loco weed. Papilionaceæ. Poisonous. Requires further study.

147. *Astragalus drummondii*. Dougl. Papilionaceæ.

This and other species are said to be poisonous.

HINTS TO DISPENSERS OF PRESCRIPTIONS*

By Valentine Schmidt.

For the benefit of those whose early education in cleanliness, accuracy and practical methods has been neglected, and for those who have never been brought in contact with pharmacists where rigid discipline is practiced, I will venture a few suggestions; little things, insignificant in themselves, but valuable in everyday practice, which, when once acquired, will do much to lighten the burdens of self and assistants.

1. You frequently see a man about to dispense a prescription take down all the bottles necessary to do the work in hand, thereby using twice the space he should, besides running the risk of making serious mistakes. Every bottle

or container should be replaced as soon as used. In that way the counter is clean and the dispenser knows what he is doing.

2. All prescription bottles should be capped with a paper cap, and the cork sealed with wax or a proper seal with some suitable design and neatly wrapped, all of which will convey to the customer the idea that you are first class and up to date. Never allow two persons to work on the same prescription; let each one finish what he undertakes.

3. When ointments are mixed on a slab, a small bit of cotton will wipe it and the spatula perfectly clean in two or three seconds, and it is ready for use again. The cost of the cotton will

*Read at the meeting of the California Pharmaceutical Association, Nov. 14, 1907.

not amount to 10 or 15 cents per month.

4. When a prescription is to be re-filled, always make an exact copy of the original and keep it constantly before you. Then in order to check it, take another glance at the original.

5. When an oily graduate or a greasy mortar is set aside for the porter to wash, drop a pinch of sawdust into it, and he will understand that that means grease, and he will thereby be prevented from contaminating the sink and other utensils with such fatty substances.

6. All chemicals for dispensing should be in 2 and 4 oz. glass-stoppered bottles, alphabetically arranged. Very inexpensive labels may be written with **India ink** on some colored paper, sized with mucilage of gum arabic, and then varnished with dammar varnish, making them attractive and durable.

Sponge.

Recent news from Florida is that a number of Greek divers have gone on trips to the sponge grounds, but owing to stormy weather, not much success had been met with. October begins the open season, diving being legally prohibited from May to September. I look for lower prices when the winter crop of Rock Island Sheep-wool, Yellow and Grass are marketed. Sales for the twelve months ending September 30, 1907, aggregate \$700,000.

Experiments at growing sponge artificially have been made with some success in Florida, and I have an encouraging letter from Professor W. E. Ritter, the Director of the Marine Biological Station at San Diego, that similar experiments in California waters would interest him much. I only hope that sponge farming in our coast waters will in due time be given a fair trial.

STANLEY ADDERLEY.

Poor Drug Business

One Topeka drug store is found to have sold \$1,400 worth of liquor during July and only \$4.50 worth of medicine. The medicine, it is presumed, was for headache.

Acetanilide as a Preservative for Solution of Hydrogen Dioxide

Some of the manufacturers are employing acetanilide as a preservative for hydrogen dioxide, and the question has been raised as to whether this practice is reprehensible. One of the leading manufacturers says unhesitatingly that it is not, for the reason that the preservative is not present in a proportion that could be considered seriously from any point of view (1 grain in 6 ounces). Further, he says, acetanilide is in itself a most excellent antiseptic and germicide, according to recent works, and is largely used by surgeons, under proper conditions, as a surgical dressing. While acetanilide is one of our most valuable drugs, like many others, it should not be used indiscriminately by the laity. Mineral acids also have the property of retarding the decomposition of hydrogen dioxide solutions, but it is held that acetanilide is eminently superior for this purpose, as it does not increase the irritability of the preparation as strong mineral acids do.

THE METRIC SYSTEM.

The metric system of weights and measures is slowly but certainly gaining favor. In fact, it became so prominent in conservative England that a bill making its use compulsory was defeated by a relatively narrow margin in the House of Commons. Of course, it has its advantages, but it is rather queer that an attempt should be made to compel the people to use it. It is but a question of time until it will be quite universally used. The proper way to make it popular and its use more extensive is to acquaint the children now in school with its value and advantages. The use of the "big stick" is necessary at times, but it should be used with much discretion.

THIRTY-EIGHTH ANNUAL MEETING OF THE CALIFORNIA PHARMACEUTICAL SOCIETY, HELD IN SAN FRANCISCO, NOV. 14, 1907.

By Albert Schneider.

First Session.

The two sessions were held in Plymouth Church on Post Street, near Webster. The first meeting was called to order at 10 a. m. by the President, W. M. Searby.

The new Constitution and By-Laws of the Society were read and submitted for action. A long and somewhat excited discussion was precipitated. H. J. Finger and others objected strongly to the fact that all business meetings of the Society were held in San Francisco, asserting that this tended to discourage southern California and northern California pharmacists from becoming members. President Searby explained that as an incorporated body the Society was obliged to have a definite place of business, and that San Francisco was so designated in the act of incorporation. It was suggested that, as the Society had no property, it was not necessary that it should be incorporated. After a discussion lasting over an hour, it was voted that the President appoint a committee of five to carefully reconsider the proposed Constitution and By-Laws and report at the afternoon session. The committee were: J. A. Sanford, H. J. Finger, F. J. Lackenbach, Val Schmidt and I. Tobriner. The Committee went into session at once.

The reports of Committees were called for, after which the President delivered his address, which appears in full elsewhere. The Treasurer reported \$75.00 in the treasury. Seventeen new members were elected, making the total membership 155. The

Committees on Printing of By-Laws and on Seal were discharged.

The President then appointed the following Committees: On Historical Pharmacy, James G. Steele and J. H. Dawson. On Membership, I. Tobriner of Oakland, J. A. Sanford of Stockton, Geo. Lichthardt of Sacramento, E. L. Baldwin of San Francisco and H. G. Dean of Los Angeles. Committee on PACIFIC COAST PHARMACEUTICAL ASSOCIATION, Albert Schneider, Val Schmidt, J. A. Sanford, R. A. Leet and W. M. Searby. Committee on Legislation, Geo. Lichthardt of Sacramento, C. B. Whilden of San Francisco, I. Tobriner of Oakland, J. H. Boyson of San Francisco and F. T. Green of San Francisco. Meeting adjourned to reconvene at 2 o'clock p. m.

Second Session.

The meeting was called to order at 2 o'clock p. m. W. M. Searby read a paper entitled "Supposin'," by H. D. Morgan, who was absent. This paper was applauded and appears in full in this issue. The Committee on Constitution and By-Laws declared itself ready to report.

I. Tobriner, as secretary of the Committee, reported the following important changes in the Constitution and By-Laws: The name to be "THE CALIFORNIA PHARMACEUTICAL ASSOCIATION." There is to be one annual meeting, to be held on the third Tuesday in May, at such place as the members may determine. Fifteen active members shall constitute a quorum, instead of five. These changes met the objections of the

morning session. After a slight discussion I. Tobriner moved, seconded by H. J. Finger, that the CALIFORNIA PHARMACEUTICAL SOCIETY adjourn *sine die*. Carried. Immediately, W. M. Searby called a meeting of the CALIFORNIA PHARMACEUTICAL ASSOCIATION. H. J. Finger moved that the California Pharmaceutical Association be organized, that the amended Constitution and By-Laws be adopted, and that all responsibilities and liabilities of the California Pharmaceutical Society be assumed by the new organization. This motion was seconded by F. J. Lackenbach and was approved by unanimous vote.

The following officers were elected to serve until the next annual meeting in May:

President, W. M. Searby. •

Vice-Presidents, H. J. Finger and J. A. Sanford.

Secretary, F. W. Nish.

Treasurer, C. J. Abrams.

Board of Trustees — I. Tobriner, Oakland; J. A. Patterson, Stockton; A. L. Leber, Oakland; J. H. Flint, San Francisco; Val. Schmidt, San Francisco; J. G. Munson, San Jose.

It was voted that **The Pacific Pharmacist** be made the official organ of the California Pharmaceutical Association.

The following papers were presented in abstract or read in full, and discussed. Lack of space does not permit abstracting these papers in this report. They will appear in full in this and subsequent issues of **The Pacific Pharmacist**:

Glycerin, Rose Water and Benzoin, Val. Schmidt; Drug-Store Help, J. A. Sanford; Pharmacist versus Physician, Fred J. Lackenbach; Bones of Contention I Have Recently Met With, S. A. McDonnell; California Pharmacy Legislation, A. L. Leber; What Tools Do You Work With? W. M. Searby; Marking of Some Goods—Cost and

Selling Prices, S. A. McDonnell; Phenol and Suicide, H. B. Carey; Legislation and Co-operative Buying, W. B. Cheatham; Tuberculin, Miss C. A. Roehr; Hints to Dispensers of Prescriptions, Val. Schmidt; Pharmaceutical Law, C. B. Whilden; Collection and Marketing of Vegetable Drugs on the Pacific Coast, F. A. Weck.

A paper by W. T. Wenzell, entitled "Coloring Matters of Flowers," was read by title, likewise the paper by R. G. Eccles, entitled "Esthetic Medicinal Plants." The paper by Albert Schneider, entitled "A Provisional Outline of the Organization of the Pacific Coast Pharmaceutical Association," was referred to the Committee on Pacific Coast Pharmaceutical Association. The paper by W. B. Cheatham, "Legislation and Co-operative Buying," was read by title.

As there was no invitation for the Association to meet next May, it was voted that the place of meeting should be selected by the Board of Trustees. Carried.

It was also voted that the Committee on the Pacific Coast Pharmaceutical Association co-operate with similar committees from Washington and Oregon, and decide upon the place of meeting. Carried. The meeting then adjourned *sine die*.

Among those present were: J. A. Sanford, Stockton; J. G. Munson, San Jose; F. J. Lackenbach, Los Gatos; H. J. Finger, Santa Barbara; Miss May E. Cardwell, I. Tobriner, A. L. Leber, Oakland; F. A. Weck, Berkeley; Mrs. W. J. Birch, Orland; F. A. Hund, Ross Valley; Dr. A. Schneider, Dr. H. B. Carey, Val. Schmidt, F. W. Nish, E. J. Malony, E. Ayers, Harold Law, S. A. McDonnell, G. J. Harvey, J. H. Dawson, E. L. Baldwin, Chas. B. Whilden, W. B. Cheatham, D. Tuggle, G. J. Belz, E. Jacob, Miss C. M. Roehr, Mr. Kronberger, J. D. Illia, and W. M. Searby, San Francisco.

**A PROVISIONAL OUTLINE OF THE ORGANIZATION OF THE
PACIFIC COAST PHARMACEUTICAL ASSOCIATION***

By Albert Schneider.

A very brief statement of this proposed organization appeared in the October number of the **Pacific Pharmacist**, and brief reference has been made to it in issues of the *Pacific Drug-gist* and in the *Pacific Drug Review*.

Historically it may again be stated that the idea to establish a Pacific Coast Pharmaceutical Association (P. C. P. A.) was conceived early in 1905, and received more deliberate preliminary consideration at the Lewis and Clark Pharmaceutical Congress, at Portland in July of that year. The first meeting is to be held in 1908, at which time the permanent organization will be effected.

The original plan was to include the Pacific Coast and Rocky Mountain States and the insular possessions. The purpose and aim of the organization is to establish and unify the interests of the pharmacists in the areas named, and to create an interest in progressive pharmacy in the West. The organization is in no wise to interfere with the work, purposes and aims of the American Pharmaceutical Association, or with the several State pharmaceutical societies. Rather the prime object in establishing the Western association is to so unify the interests of the Western pharmacists that there may be a full co-operation with the national body. This cannot be done at present. The Rocky Mountain system establishes a natural barrier between East and West, and the mountainous or insular nature of the areas to be included in the organization makes it difficult to establish a stable

local communication between pharmacists, which, again, makes it practically impossible to effect any local organization which is reasonably permanent and which has any marked useful significance.

The Western pharmacists are too remote to derive any considerable benefit from the meetings of the national body, nor can they, as a rule, take part in their deliberations. To make the trip from San Francisco, Portland, Seattle or Los Angeles to the points in the East where the meetings of the National Organization are usually held, is quite an undertaking and quite an expense. Even when the Western pharmacist does arrive at the place of meeting, he feels lost and an absolute stranger. These and other conditions have suggested the desirability of organizing the Pacific Coast and Rocky Mountain pharmacists.

The establishment of the organization does not mean secession from the A. Ph. A. The sessions and deliberations of the P. C. P. A. will not interfere with the sessions of the A. Ph. A. It is highly probable that the annual sessions of the P. C. P. A. will be held just prior to those of the A. Ph. A., and that delegates will be appointed to represent the interests and deliberations of the Western pharmacists at the session of the national body. These delegates will then not feel strangers, and will have something of interest to present and discuss. The full deliberations of the Western organization will in all probability be printed from time to time in some official publication.

With the above preliminary considerations we shall briefly outline a ten-

* Read at the annual meeting of the California Pharmaceutical Society, November 14, 1907.

tative or provisional scheme of organization. As conceived by the writer, the territory to be included in this organization should be Washington, Oregon, California, Arizona, New Mexico, Colorado, Utah, Wyoming, Idaho and Montana; Alaska and the Aleutian Islands; the Philippine Islands, including Luzon, Mindanao and lesser islands; the Hawaiian Islands, including Hawaii, Maui, Kahulawi, Lanai, Molokai, Oahu, Kauai, and Niihau; Wake Island and Guam; and such other territories as may come within the possession of the United States, which lie close to the areas named.

It is quite clear that within the territory named the States of Washington, Oregon and California contain the greater number of pharmacists, but the other States and Territories are rapidly increasing in population and business interests and there are self-evident reasons why the proposed organization should look after the interests of the pharmacists of the entire area named.

The following tentative constitution is proposed, which will serve to outline more fully the aims and purposes of the association:

Article I. The organization shall be known as the Pacific Coast Pharmaceutical Association.* Its aim shall be to develop and unify the pharmaceutical interests in the territories included in the association and to unite these interests with the several State and Territorial associations, and with those of the American Pharmaceutical Association, in so far as that is possible and practicable.

Article II. The interests of the association shall be operated under six divisions or departments, as follows:

1. Commercial pharmacy, whole-

sale and retail. It shall be the duty of this department to look after the best business interests of the pharmacists in the association and suggest the best and most economic ways and means of barter and exchange of pharmaceutical products.

2. Education and Legislation. It shall be the duty of this department to work in the interests of higher and better pharmaceutical education generally, and to formulate and promote better pharmaceutical legislation within the territory of the association.

3. Scientific Department, to encourage advance work in the several departments of pharmacy and to urge scientific research, investigation and exploration, within the territory of the organization.

4. Promotion and Information Department, to keep a constant lookout for new ways and means of advance and betterment of pharmacy and to issue reports on pharmaceutical progress within the territory of the association.

5. Publication Department, which shall have charge of the work of publishing the reports of the organization and which shall have control of and publish the official organ of the association.

6. Membership and Programme, which shall recommend candidates for membership and which shall have charge of the arrangement of programme of the regular annual meetings.

Article III. The membership of the association shall consist of active members, life members and honorary members. Active membership fee shall be \$2.00 annually; life membership, \$25. Honorary members shall be exempt from all fees.

Article IV. Meetings shall be held

* Perhaps the name Pacific Pharmaceutical Association would be more appropriate.

annually (at a place decided upon at the regular annual session) approximately about one month before the meetings of the American Pharmaceutical Association.

Article V. The officers of the association shall be a president, three vice-presidents, a secretary and a treasurer.

Article VI. The general management and control of the association shall be under a **Board of Directors**, the membership of which shall consist of the president and secretary of the association and the chairman and secretary of each of the six departments named in Article II.

Article VII. All offices in the association shall be non-salaried.

Article VIII. Membership fees shall be devoted in part to the publication of an official organ, reports, etc., and in part for reserve purposes, to be stated in the By-Laws.

Article IX. The association at each regular annual session shall appoint one or more delegates who shall attend the regular annual sessions, of the same year, of the American Pharmaceutical Association, and shall there report to the proper committees such action or actions of the association as appear to be deserving of consideration and action by that body. The traveling expenses of these delegates shall be paid by the association.

Article X. Active membership shall continue as long as the annual fees are paid up and shall cease with non-payment of fees, without notice. There shall be no black-list of delinquents. All active members shall receive the official organ and other publications free.

The By-Laws governing the American Pharmaceutical Association could readily be adapted to the requirements

of the proposed organization, and the By-Laws of the Council of the A. Ph. A. could readily be adapted to the requirements of the **Board of Directors** of the proposed organization.

The above is no doubt sufficient to make clear what the Pacific Coast Pharmaceutical Association is to be, what it is to do, and how it is to be organized, as conceived by the writer. A committee is to be appointed by the President of the California Pharmaceutical Society, which committee is to consult with similar committees from other State pharmaceutical organizations within the territory named, and these several committees are to formulate and present a plan which is to be submitted for consideration and action at a meeting which is to be held in 1908.

MEXICAN RUBBER

A syndicate is rapidly securing possession of the regions about Torreon, Mexico, where the new Mexican rubber plant (*Parthenium argentatum*) is most abundant. This shrubby plant contains a very high percentage of rubber (25 to 60 per cent) which is, however, not of first quality. The same syndicate is also trying to get control of the Mexican rubber plantations, thus hoping to form a huge rubber trust.

There is much secrecy concerning the operations with the new Mexican rubber plant. The syndicate is apparently trying to propagate it, but with what success is not known. Attempts to get seed and living plants for the San Francisco Garden of Medicinal Plants have utterly failed thus far. It is a plant evidently highly adapted to the dry hill ranges of Mexico, found mostly at an elevation of 6,000 feet.

ALAMEDA COUNTY DRUGGISTS DINE THE STATE BOARD

A banquet was given in honor of the State Board of Pharmacy by the "Druggists-on-the-Right-Side-of-the-Bay" at the Key Route Inn, Oakland, on Tuesday evening, October 22d, for the purpose of having a friendly conference over the recently enacted Poison and Pure Drug laws, and of consulting with the board relative to the regulations to be made for the enforcement of these laws. It is safe to say that the drug trade of Alameda County never was as well represented at any previous gathering, and their coming together in such force argues well for their success in whatever they may hereafter attempt to do. Between 40 and 50 persons sat down to a bountiful repast, after which Dr. F. F. Jackson, who presided, called upon W. M. Searby, as President of the American Pharmaceutical Association, to open the discussion. After expressing his dissatisfaction with that part of the Pure Drug law which commits its administration to the State Board of Health, consisting entirely of physicians, and declaring himself in favor of having such a law executed by a board consisting at least in part of pharmacists, he commended the law as being in line with the endeavors of the leaders in pharmacy for the last half century. He believed it was a good law and would be a public benefit. Referring to the Poison law, he claimed that it would not be detrimental to druggists, but would rather benefit them, as it would have a tendency to confine the handling and sale of poisons to those who know their nature, can provide antidotes if called upon to do so, and are familiar with the conditions attending their use and sale.

The other speakers were R. S. Oak-

* Archives of Alameda County, by R. A. Leet.
In loco.

ford, Long Beach; Ed T. Off, Los Angeles; E. J. Molony, San Francisco; J. O. McKown, Livermore; Geo. M. Sutherland, Alameda; A. L. Leber, Oakland; C. B. Whilden, San Francisco, all of the State Board, and I. M. Parry, R. A. Leet, R. E. Miller, Fred Taylor, Fred Osgood, R. C. Reed and I. Trobiner, representing the local druggists.

It was stated by Mr. Whilden that there had already been some conference between the State Boards of Health and of Pharmacy with reference to the enforcement of the Pure Drug law, and it was certain that the two boards would act in harmony. A committee from the meeting was appointed to confer with these boards in regard to the interpretation of the law. The committee consisted of R. A. Leet, James Maclise and Dr. F. F. Jackson.

The meeting broke up shortly before midnight, all feeling that it was a good thing to have met and talked over these things in a frank and friendly way.

Among those present were:

From Oakland—Geo. Atwood, R. H. Arbury, W. H. C. Bartlett, Wm. M. Berg, A. J. Boehmer, R. S. Collins, Willis Collins, F. Clough, C. F. Darling, C. F. Dibert, J. J. De Gloria, A. Forneris, H. A. Glines, H. Gonzales, W. R. Haight, C. H. Hammit, Paul Hanby, F. F. Jackson (M.D.), F. S. Klinkner, R. A. Leet, A. L. Leber, James Maclise, J. H. McHaffie, R. E. McCracken (M.D.), W. A. Maxwell, B. I. Mouser (M.D.), R. E. Miller, W. Moore, I. M. Parry, A. R. Specht, F. Sandelin, J. N. Scott, I. Tobriner, F. B. Taylor, H. Wachs, W. P. Wheeler, W. A. Wishart, L. Westlake.

From Berkeley—W. A. Brabook, R. D. Fuller, G. A. Griesche, Robt. L. Reid, I. Wolff.

From Alameda—P. Flatow, G. M. Sutherland.

From Fruitvale—E. Philip, G. R. Warren. J. O. McKown, from **Livermore**; R. S. Oakford, from **Long Beach**; E. I. Off, from **Los Angeles**, and C. B. Whilden and W. M. Searby, from **San Francisco**.

A RULE THAT WORKS BOTH WAYS

We have been under the impression that the business of proprietors, jobbers and retailers of "patent medicines" were so related to each other that the interests of all were best served by the exercise of a good deal of conciliation in cases where any of the parties felt aggrieved. At the recent meetings of the N. A. R. D. and the N. W. D. A. it appeared as if antagonism had given way to co-operation, and a permanent era of peace and good will had been assured. But our optimism on this point received a shock a few days since, when we read the subjoined advertisement in the San Francisco **Call**. It was most prominently displayed in the midst of pure reading matter, where ordinarily no advertising is allowed to appear. Somebody paid a big price for that space. It occupied two columns in width by the same length, nearly four inches square. Below is an exact copy, reduced in size:

JUST AS GOOD

Druggist—No, this isn't the article you want. It's something we made ourselves, and I can guarantee it to be just as good as the original. Thank you. But excuse me. I am afraid this dollar is bogus.

Customer—I know, but I think you will find it just as good as the genuine. I made it myself.

**IT'S A POOR RULE
THAT DON'T WORK BOTH WAYS
EVEN IN SUBSTITUTION**

This is unjust, and therefore unjustifiable, because it leaves the reader to infer that every druggist is a substitutor, which is not true. Furthermore, it is mean and cowardly, for it is anonymous. We admit that some druggists

do substitute, but the proportion who do is less than in other lines of business. We ask no quarter for those who are guilty, but the honorable should not be held up to reproach with the dishonorable.

For several years advertisements of this character have appeared in our daily papers from time to time, and so long as they did not specifically name druggists as the persons aimed at, our only objection was that these publications were anonymous. But when the advertisers single out a particular class of business men as being sinners above all others, it is time for us to protest. The publisher of an anonymous libel is responsible for the statements he publishes, and we believe it is only necessary to call the attention of the publishers of the S. F. **Call** to the unfairness of the advertisement to induce them either to refuse to accept further ads of this kind or to require the advertisers to attach their names.

But "It's a Poor Rule That Don't Work Both Ways." Some of the people who declare loudest about imitations are themselves among the worst imitators. Let these people come out in the open, and if they can show clean hands, we will support them in their crusade against substitution. But so long as they continue their present skulking anonymous methods, we shall protest.

It is unfortunate that this libelous advertising should be continued, after what has occurred during the last year or two. Public opinion is turning strongly against "patent medicines." This indiscriminating attack upon druggists is calculated to alienate the only real friends the proprietors have in the drug trade, i. e., those who do not substitute. Where would the proprietors be if every druggist who helps their business by marketing their goods

for them turned against them and discredited their wares? With the substitutes substituting, and all others aggressively antagonistic to them, they would get small returns from their greatly increased advertising bills.

People who live in glass houses should not throw stones.

Danger of Gasoline and Benzin

Because the odor of gasoline and other volatile petroleum products is almost instantly perceived by a person standing when some is spilt on the floor, there is a common impression that the vapor of these substances is lighter than air. The reverse is the case, gravity accelerating the diffusion, which, however, is much more rapid than most people suppose. The danger from a leakage under any conditions is thus referred to by the "Paint, Oil and Drug Reporter":

There is no greater danger in benzin itself than there is in ordinary coal gas, provided the same care be taken to prevent leakage. But though most men take good care that gas does not leak long, the majority would proceed to smoke in a room with open cans of benzin all round them. The fact is that a leaking of benzin is absolutely the most dangerous thing anybody could have on the premises, for time flies with no greater certainty than benzin travels to a light.

Professor Vivian B. Lewes, of the Naval College at Greenwich, made this very clear the other night, says the "Petroleum World." He cited the case of a garage in which benzin had been leaking from a can for weeks, the fumes passing below the securely fastened door out into a lane. One day a man, lighting his pipe outside, threw the match down, and the flame immediately flashed back to the can,

setting the whole building in a blaze. To satisfy themselves, he invited his hearers to go home and place a lighted candle at the foot of the stairs; then at the top to sprinkle a drop or two of benzin. As surely as night followed day, the fumes of the benzin would travel downstairs to the light and flash back, setting fire to the house in all probability. To save this destruction in the interest of scientific research, the professor placed a miniature gangway of a length of about two feet, before his audience, and lighting a little candle, placed it at the bottom. Then he poured a few drops of benzin at the top and waited. It was not a long wait. The flash came just as he said it would.

SULPHUR AS A MEAT PRESERVATIVE

It is reported that Prof. Lapparent, of Paris, has discovered in the use of sulphur a new process for the preservation of meat. His method is much like that used by the fruit farmers in California in drying and preparing fruit for the market. If he has the same trouble with the Pure Food Law as our California people do, it may not be such an important discovery after all.

DISINFECTANTS AND DISINFECTION.

Henry Albert, M. S., M.D., writing in the Journal of the A. M. A., gives his views and practical experience upon the above subject. For the disinfection of premises following contagious diseases, he says: "A great many substances might be used." He takes a rap at many of the advertised disinfectants and believes many of them have little value aside from their antiseptic or deodorant properties.

There are three agencies we should keep in mind in general disinfection: (1) a gaseous disinfectant; (2) heat; (3) a liquid disinfecting solution.

There are three methods of aerial disinfection: (1) by using formaldehyde gas; (2) by sulphur fumes; (3) by hydrocyanic acid gas. For the various contagious diseases the first of these methods is by far the best. Sulphur and hydrocyanic acid are better than formaldehyde only when we have animal life to deal with, such as cockroaches, bedbugs, fleas, mosquitoes, etc. Formaldehyde seems to have little injurious effect upon animal life.

Formaldehyde is much better than sulphur, not only being more efficient, but scarcely at all harmful to any of the articles in a room.

He lays emphasis upon the manner of carrying out disinfection, and rightly believes that this is equally important or more so than the agent used. The writer believes in using more of the agent than is usually directed by the supply houses.

Under ordinary conditions 16-oz. of formalin for each 1,000 cubic feet of room space is recommended. When only surface disinfection is required, half the above amount suffices. The temperature of the room should be about 70° F. or higher. If the temperature falls below 52° F., disinfection cannot be relied upon. The more moisture in the atmosphere the better. If all the openings in the room cannot be closed, double the quantity of formalin must be used.

Of the various methods for generating the gas, he believes that accomplished by the use of potassium permanganate is the best. The formaldehyde solution is poured into a rather deep vessel in which the potassium permanganate has previously been placed. The potassium permanganate, by oxidizing a portion of the formaldehyde, changing it to formic acid, produces enough heat to evaporate the remainder. From 10 to 13 oz. of potassium permanganate is used per 1,000 cubic feet. To be exact, the author recommends 20 oz. formalin and 8½ oz. potassium permanganate for each 1,000 cubic feet of room space.

The author believes it is rarely if ever necessary to resort to liquid disinfection when a room has been carefully disinfected by the formaldehyde gas method. Of the liquid disinfectants he selects carbolic acid and corrosive sublimate solution as being very satisfactory agents. The carbolic acid is used in 5% solution and the corrosive sublimate in 1-1000 solution.

THE ANILINE INDUSTRY

"Some idea of what Sir. William Henry Perkin has done for the aniline dye industry may be gathered from the fact that now 120,000 men are employed throughout the world in manufacturing valuable products from what was once considered worthless, and that the coal tar products of Germany alone are sold for \$50,000,000 a year. The substances which are produced from what was once considered as the refuse of gas retorts are numbered by the thousands. The discovery of Perkin gave birth to the manufacture of synthetical medicinal agents, antiseptics, perfumes, artificial sweetening materials and explosives. It is estimated that there are fully 1,000 dyes alone which have been developed from coal tar. Scores of articles used in the arts and in medicine now found in common use had their origin in the black fluid which formerly was only a source of annoyance to those who produced it as an incident to the manufacture of illuminants.—**Paint, Oil and Drug Review.**

South Dakota Raises Examination Standard

St. Paul, Minn., Oct. 19.—Owing to the increasingly difficult examinations elsewhere, the South Dakota Board of Pharmacy has caused the standard required for compounding drugs to be raised to a parity with that of any other northwestern State. Among other requirements is one pertaining to education, no applicant being eligible to examination unless he has had at least a high school education.—**Phar. Era.**

It is the easiest thing in the world to attract attention, but it is quite another thing to attract attention and money at the same time.—**The Profit Maker.**

Correspondence

San Jose, Cal., October 11, 1907.
 Editor **Pacific Pharmacist**,
 San Francisco.

Dear Sir: While reading today an article on "Let Us Have Peace," in the Bulletin of Pharmacy, a prescription from one of our leading physicians was handed me, which reads as follows:

For Baby

Rx. Peacock's bromides, 1 oz.
 Elixir lactopeptine 2 oz.

Sig. Give as directed.

I asked the messenger, a stupid young Italian, evidently full of bug juice, how much of the mixture the baby was to get at a dose, but he was totally impervious to the "King's English," and I handed him the vial with some misgiving.

Now, it seems to me that if the dispensing pharmacist is required to act as a check on possible errors of dose on the part of the prescriber, and if he is liable to prosecution should harm come from an overdose, a physician plainly has no right to write such a prescription as the above. In my humble judgment he should be required by law to state the dose of all medicines intended for internal consumption.

And while on this subject, permit me to go a little further.

Is it right and proper, and for the public interest and safety, that a physician should be both judge and jury to his patient, as he now is?

Why not make the axiom, "Eternal vigilance is the price of liberty" applicable to the sick room?

In this country of ours the physician makes the diagnosis, furnishes the medicine, if he sees fit, and makes out the death certificate. **He is an absolute autocrat of the sick room and the**

death chamber. Is this a desirable state of affairs? **Is it necessary?**

I have great respect for the medical profession in general, but, like other callings, it shelters some black sheep and some careless and indifferent men; and surely no well meaning member of the profession will object to the placing of reasonable safeguards in the sick room. And if such be the case, why, I humbly ask, could not the A. Ph. A. ask the A. M. A.'s co-operation in a recommendation to all States of the Union to pass laws prohibiting physicians from furnishing medicines to their patients, except in cases of emergency, and no longer?

Such laws have long existed in most civilized countries.

Many physicians would look upon such a step with disfavor and prate about cupidity of druggists, but a majority would, I believe, favor it, and the flower of the profession would be ranged with the majority.

Very respectfully,

THEO. V. BROWN.

[We are living under conditions that are far removed from the ideal. It would certainly be in the interest of public safety if prescribing were done exclusively by physicians and dispensing exclusively by pharmacists. But today many of both parties violate the ideal condition a good deal. We have laws enough already, if both sides would live up to the spirit of them.—Editor.]

Labels Must Tell the Percentage of Alcohol

San Jose, Cal., October 11, 1907.
 Editor **Pacific Pharmacist**,

Dear Sir: I would respectfully ask your opinion whether, under the State Food and Drugs Act all articles sold

containing alcohol must state amount of such on the label, or whether only patent and proprietary articles in original packages are meant.

For example: Must I state the amount of alcohol contained in 10 cents' worth of tincture of arnica, in a vial of face cream, in a vial of liniment, or toothache drops?

Thanking you beforehand for your kind reply, yours very respectfully,

THEO. V. BROWN.

The percentage of alcohol, not the exact amount, must be expressed.

This question was answered in our July number (page 142). Dr. H. W. Wiley's words were "the per cent of absolute alcohol contained in a remedy should be indicated on the label (directly under the name of the product), this also applies to **United States Pharmacopœial and National Formulary Preparations.**" By a recent decision the words which we have enclosed within parentheses are temporarily suspended. Old labels can be used with stickers, provided that such stickers state correctly the alcohol percentage present.

The regulations and definitions adopted for the enforcement of the National Food and Drugs Act apply to the State Act.

Our readers will appreciate the note of caution here given:

The Owl Drug Co.

Oakland, November 1, 1907.

The Pacific Pharmacist, San Francisco, Cal.—Gentlemen: We would call the attention of druggists generally to the practice of selling snuffs from shop bottles. This is contrary to law, and no druggist should ever have on his shelf a container for snuff other than the original package.

Yours truly, THE OWL DRUG CO.,
Per W. M. Berg, Assistant Secretary.

Snuff should be retailed from its original and stamped container. A convenient method is to have a jar with a well-fitted cover to hold the bladder of snuff, cut a circular piece nearly off one end of the bladder and sell from it.

J. H. D.

Editor **Pacific Pharmacist**,

San Francisco—

Can you tell me what is Black's 1, 2, 3, used by dentists?

T. A. S.

We are indebted to Dr. Guy S. Millberry for the following reply, from Gorgas's Dental Medicine:

Rx. Carbolic acid (melted crystals)

1 part

Oil of cassia

2 parts

Oil of wintergreen

3 "

Mix the oils and add the melted crystals of carbolic acid.

Potassium Chlorate Gargle.

Swiss courts recently condemned a military surgeon to a month's imprisonment on account of the death of a soldier under his charge for the consequences of drinking a solution of potassium chlorate, which had been given to him for a gargle. Evidence was presented to show that the physician had expressly stated to the patient and the under sanitary officer attending him that the solution was for a gargle, but the sanitary officer alleged that he did not know what a "gargle" meant, and had allowed the soldier to drink the fluid. The military court of appeals reversed the decision and honorably discharged the physician.

The comment upon it in the medical journals was that potassium chlorate would cease to be used as a gargle in the Swiss army.

Formulas

Cements

Diamond Cement

Gelatin 1 oz.
 Dissolve in water 5 fl. oz.
 Evaporate to about 3 fl. oz.
 Gum mastic 1½ dr.
 " ammoniac ½ "
 Dissolve in alcohol 2½ oz.

Heat to boiling and add the hot solution of gelatin and mix them.

Chrome Cement

This cement should be freshly made when wanted for use.

Gelatin 1 dr.
 Hot water ½ oz.
 Potassium dichromate 15 gr.

Dissolve the gelatin by the aid of a water bath and add the potassium salt and apply as soon as possible. This forms an insoluble compound.

Marine Glue

Shellac 3 dr.
 India rubber 1 "

Dissolve separately in ether and mix the solutions.

Waterproof Glue

Dissolve gum shellac, 3 parts, and India rubber, 1 part, by weight, in separate vessels in ether, free from alcohol, subject to a gentle heat. When thoroughly dissolved, mix the two solutions and keep in a tightly sealed vessel. This glue resists the action of hot and cold water, and most acids and alkalies. If thinned with ether and applied to leather along sewn seams it gives a strong watertight joint.—Popular Medicine.

A Liquid Glue

Slaked lime 4 oz.
 Sugar 6 "
 Water 18 fl. oz.
 Glue 6 oz.

Place the lime and sugar in the water heated to 75° C., decant the clear liquid, add the glue, and, after

allowing to swell, again apply the heat until dissolved.

A Lice Powder

Sulphur 4 oz.
 Tobacco dust 6 "
 Oil of cedar ¼ "
 White hellebore 4 "
 Crude naphthol 2 "
 Powd. chalk, to make 2 lbs.

The chalk is used as a filler to increase the bulk. Put up in 1-pound paper boxes. Sell for 25 cents.

Electric Benzin for Cleaning Purposes

White Castile soap 1 dr.
 Alcohol ½ fl. oz.
 Glycerin 1 "
 Ammonia water 1 "
 Ether 1 "
 Water, to make 16 "
 Benzin q. s.

Dissolve the soap in the water, then add the remaining ingredients. Take a 4-ounce wide-mouth bottle, put into it drachms of the solution, and then add benzin, little by little, shaking well after each addition until the bottle is full.

The finished product will be a thick, white cream. Cap the bottle, label, and wrap in wax or oil paper. Sell for 15 or 25 cents.—Modern Pharmacy.

A Bath Powder

Tartaric acid 10 oz.
 Sodium bicarbonate 9 "
 Starch 6 "

A few spoonfuls of this when stirred into a bathtubful of water cause a copious liberation of carbon dioxide, which is thought by some to be "refreshing."

Perfume may be added to this powder, volatile oils being a good form. Oil of lavender flowers would be a suitable addition in the proportion of a fluidrachm or more to the av. pound of powder. A better but more

expensive perfume may be obtained by mixing 1 part of oil of rose geranium with 6 parts of oil of lavender flowers.—Modern Pharmacy.

SACHET POWDERS**Simple Sachet**

Powdered orris 16 oz.
 Vanilla 2 "
 Tonka 4 "
 Mix.

Violet

Simple sachet 16 oz.
 Gum benzoin (Siam)..... 3 "
 Musk 20 gr.
 Oil of rose.
 " " almonds ess. aa.....10 m.
 " " cassia 3 "
 Mix.

Heliotrope

Powdered orris 16 oz.
 Rose leaves 8 "
 Tonka bean 4 "
 Vanilla 2 "
 Musk 1 dr.
 Oil almonds, bitter..... 2 m.
 Mix.

Jockey Club

Simple sachet 16 oz.
 Powd. cassia buds.....½ "
 Gum benzoin (Siam)..... 4 "
 Oil of sandal..... 6 m.
 " " rose 10 "
 " " neroli 15 "
 Musk 30 gr.
 Mix.

College News

California College of Pharmacy

An enthusiastic meeting of the student body of the California College of Pharmacy was held in the college building on October 10, 1907. The meeting was called for the purpose of effecting an organization of the body. The election of officers resulted as follows: Jas. A. Arkin, president; G. A. Schoen, vice-president; J. E. Parsons, secretary, and Miss A. Farrell, treasurer.

A committee of six was appointed for the purpose of drawing up a new Constitution and By-Laws, viz: Miss A. Farrell, W. C. Johnson, L. H. Fairchilds, D. L. Staniford, F. H. Dessell and E. F. Martin.

A large party of students attended the football carnival at Idora Park on September 28, 1907. From all reports the boys had a good time.

Under the supervision of Dr. Carey, the Senior class visited the botanical garden of Berkeley, Friday, October 18, 1907. A number of the medicinal plants were discussed. The trip proved quite interesting and instructive.

A number of students were present at the big intercollegiate football game at Palo Alto on Saturday, November 9. Alack and alas! California was not victorious.

PHI CHI NOTES

Since the beginning of the college year the following have been initiated

into the mysteries of Phi Chi: L. H. Fairchild, J. A. Flynn, W. C. Johnson, T. E. Komsthoeft and G. A. Schoen.

It is considered doubtful whether Zeta Chapter will be able to send a representative to the coming meeting of the Grand Council at Minneapolis in February. Some alumnus who may be going East is our only hope.

There is some talk of organizing a glee club among the active members, as we have several musicians and good voices.

No doubt in the near future a series of baseball games will be arranged for with the fraternities of the Dental Department. There is plenty of good material and some close and exciting games are looked for.

The directory of members will soon be revised. It would aid the secretary very much if alumni members and members of other chapters now located in this section, would forward their present or permanent addresses to him.

Members of the Alumni Association of the California College of Pharmacy may obtain certificates of membership

upon the payment of one dollar by sending a postal money order or check for that amount payable to the secretary, Clarissa M. Roehr, University of California Hospital, Affiliated Colleges, San Francisco.

College of Physicians and Surgeons Department of Pharmacy

The personnel of this department is fully up to the standard of former classes and we have every reason to predict that at the end of the college year a bunch of good pharmacists will receive their degree, and every one can feel confident that his or her examination before the State Board of Pharmacy will result in securing the licentiate certificate.

The drug clerk who attends a college of pharmacy experiences a decided change from the every-day humdrum life of the drug store; the lectures, together with the association of the variety of clerks whom he is daily brought in contact with, stimulate and encourage him to do his best. Not wishing to be outdone by his fellow-students, he applies himself with a determination to be up in his work and recitations that he may make a good showing to his instructors.

Both the Senior and Junior classes are giving evidence of faithful application to their work. The dispensary work which each student has to perform in preparing the many prescriptions which come from the different clinics, including a great variety of pills, mixtures, emulsions, suppositories and capsules, and also manufacturing supplies for the surgical and other clinics, give him an experience and training in the technique and practical manipulation which fits him for any class of pharmaceutical work that he may be called upon after graduation.

The Dental Department gave one of their series of socials, which was enjoyed by all. The Medical and Pharmaceutical Departments were well represented from the student body, and we were pleased to note quite a number of the faculty were tripping the light fantastic with the fairer sex. The dental boys are always favored by having an abundance of beautiful ladies in their airy costumes at these social dances.

HEARD IN THE CLASS ROOMS

Professor (in Materia Medica Quiz).
—In what zone does *Aspidium* grow?
Junior Student—Rhizome.

Professor—What acid occurs in tar?
Student—Tartaric, I suppose.

Professor (in Toxicology)—In cases of poisoning, what is mustard used for?

Student—Mustard is used as an emetic to excavate the stomach.

Crick in the back, jumping toothache and St. Vitus's dance would form a combination not to be sneezed at.

THAT'S SO, TOO

Professor, to student—Name the tests for sulphur dioxide.

Student names two, and says that is all there are. Professor tells him another. Student hands him a slip of paper marked "That's SO₂."

The Oregon Railroad Commission has asked the Interstate Commerce Commission to fix a just and reasonable rate for the transportation of denatured alcohol. The rate has been the same as that upon other alcohol. It is claimed that this rate is unjustly high for denatured alcohol.

Personals

Kahler Brothers of the Bakersfield Drug Company are now the sole proprietors of that well-known establishment, and contemplate making many improvements in their store.

H. A. Cravath of Bakersfield, the popular head clerk with J. A. Hughes, has returned to the prescription counter after a month's vacation spent in the southern part of the State.

J. W. Stone, a brother of James Stone, prescription clerk with the Morrow-Kimball Drug Company, expects to arrive in Bakersfield from St. Louis, Mo., shortly, and will locate with the same firm.

Chas. Baer of Baer Brothers of Bakersfield has returned from San Francisco, where he spent a month of pleasure and business combined. Mr. Baer was managing their branch in the city, while his brother was attending to the management of the Bakersfield store.

A. Skinkle, proprietor of the Hardman Drug Store of Riverside, has been on an extended visit in the northern part of the State.

Suit was filed in the Superior Court to dissolve the partnership of Kibbe & Perrin, proprietors of the Jose Drug Company of San Jose.

G. O. Kendall is the new manager of Green's pharmacy at Pasadena, Cal.

Fred V. Alter of San Antonio, Tex., has been employed as a pharmacist at Neblett's Opera House Drug Store of Riverside, having passed the required examination before the State Board of Pharmacy.

Eugene Martelli, a cook, living on Seventh Street, Oakland, had a narrow escape from death because of three bichloride tablets taken under the belief that they were cough pellets.

Dr. Majors has sold his drug store and removed the stock to Soledad.

Believing the free samples of pills given away by a drug company at the closing night of the carnival to be candy, little Carl Reigelman, living at 1154 Brush Street, Oakland, swallowed a whole box of sugar-coated pellets before he learned his mistake. He commenced to suffer great agonies and was hurried to the Fabiola Hospital

emergency booth, where his sufferings were relieved.

The drug store of C. F. Clapp, located on Citrus Avenue, Covina, Cal., is a first-class establishment in every sense of the word.

Tom McGuire, the well-known Petaluma druggist, surprised his friends and neighbors by going to Dunn Ellen, N. J., and getting married to Miss Louise Brakeley, a popular young lady of that place. The newly wedded couple will return to Petaluma.

Benneson & Treanor have concluded to quit the drug business at Cucamonga, and have sold out part of their stock and shipped the remainder elsewhere. It seems that Cucamonga is too healthy a place for the drug business to thrive.

B. Ruppe, the Albuquerque druggist, received notice yesterday of his appointment by the Territorial Board of Health as Territorial health officer. The appointment is considered a very wise one.

Ed Hahn, the popular young druggist who so successfully passed the pharmaceutical examination last week at Albuquerque, will remain in Raton.

Redwood City has among its numerous finely equipped and well-stocked stores none more attractive than the drug and stationery store conducted by A. D. Walsh.

Dr. A. E. Kosby of Yuba City is having a building erected on his lot on Fairman and Second Streets for his drug store, until he can rebuild on the old site.

Glen Foulke, the popular assistant in Dr. Juell's Pharmacy on B Street, Santa Rosa, on Monday received word that he had successfully passed the examination and had been duly registered as a licensed pharmacist.

W. C. Chipps of Santa Rosa filed his certificate of pharmacy in the office of the county clerk on Monday.

The denatured alcohol plant at Twenty-third Street and Umatilla Avenue, Portland, Or., was damaged by fire to the extent of \$1,250. The fire started from a can of pitch which was being heated on the stove and which blazed up, setting fire to the walls.

Dr. A. T. Holt, proprietor of the Covina Pharmacy, has sold his stock of drugs to Mr. E. U. Smith of Sacramento. Dr. Holt has disposed of his business to reside in Los Angeles, where his daughter is attending college.

Matt A. Larkin, manager of the Mills Novelty Company, dealers in slot machines at Fifth and Market Streets in San Francisco, was arrested and charged with counterfeiting the Castoria labels of the Charles H. Fletcher Company of New York and the trademark used for the Stuart dyspepsia tablets.

The new Bickner Building of St. Johns, Or., which is now under course of construction, has already been leased. W. M. Scarborough will occupy one room with his North Bank Pharmacy.

H. H. Eaton, a registered pharmacist of San Francisco, has purchased the Ukiah Drug Store from Mayor Weldon and will conduct the same in the future.

C. A. Black, a former newspaper proprietor of San Luis Obispo, has rented the corner store in the Brooks block, at the corner of Shattuck Avenue and Kittredge Street, Berkeley, and will open a first-class drug store there in the near future.

Death from Jaborandi.—An autopsy was performed by Dr. George H. Derrick upon the body of Mrs. Edele E. Davis, who was found dead at her room, 304 St. Paul House, San Francisco, and as a result he says that death was caused by congestion of the lungs following the taking of an overdose of jaborandi.

James Conlisk, one of the members of the Tonopah Drug Company, returned from a trip to Salt Lake and other places.

Joe Wilson, salesman for the Brunswick Drug Company, Los Angeles, was in Yuma recently.

E. A. Test, the druggist who has purchased the Anderson Pharmacy of Tulare, returned last night from a business trip to Los Angeles.

Dr. Pierce's World's Dispensary Medical Association, which recently recovered heavy damages from the Curtis Publishing Company, publishers of the **Ladies' Home Journal**, has accepted \$17,581.48 in full settlement of all damages.

John Rickels, the assistant in the Mission Pharmacy of Orange, was held up by masked men, and they went through his pockets, securing nothing more valuable

than a new pocket-knife. What more could they expect from a druggist?

At the instance of Ben S. Virden, druggist of Oxnard, an ordinance was placed on its first reading that will demand a special license of \$25 per day for all peddlers or venders of patent medicines or drugs.

Mr. Ericson and family of Vancouver, B. C., were poisoned by eating canned tongue. They were saved through the prompt action of Dr. Underhill.

A most attractive store is conducted by the Ventura Drug Company and managed by Phil P. Glezen.

Dorn & Dorn, the druggists, of Echo, Or., have commenced the erection of a much-needed addition to their store building.

E. G. Murphy, the portly Las Vegas druggist and member of the New Mexico Board of Pharmacy, was spending a few days in Albuquerque recently.

Bowman's busy drug store in Fortuna, Cal., will soon be enlarged for better display of the stock of goods.

W. E. Abernethy, having bought the drug store of Dr. E. A. Majors of Soledad, will soon enter the drug business. Dr. Majors will remove to Berkeley in the near future.

B. Ruppe of Albuquerque was elected president of the New Mexico Board of Pharmacy for the twelfth consecutive time, while A. J. Fischer of Santa Fe was re-elected secretary and treasurer for the fourth term.

Friends of Chas. E. Weck, formerly of Weck's drug store, will be interested to know that he has gone to Reno, Nevada, to engage in the drug business.

The family of H. E. Shaw, city engineer of Los Angeles, are slowly recovering from severe ptomaine poisoning which was caused by roast beef.

Messrs. O. P. Brady and E. Schneider have bought the drug store of Lynn Boyd at the corner of Fifth and C Streets, San Diego.

As soon as the Southern Pacific Company lays a spur track to the Stauffer Chemical Company's property, the latter will be ready to erect a large soda ash plant at Oakland, according to the statement of John Stauffer, the largest stockholder in the company.

A. B. and C. S. Clapp, constituting the firm of Clapp Brothers, have sold their drug store on Pier Avenue, Ocean Park, Cal., to C. G. Reed, late of Laurens, Iowa.

W. J. Armitage, a prominent druggist, who owns two drug stores in East Portland, accompanied by his wife, visited their relatives at Drain, Oregon.

A lone highwayman of the Jesse James order rode up to F. J. Quirin's drug store at Twentieth and J Streets, Sacramento, one night, held up the clerk, took two shots at him, tapped the till and rode away on a barebacked horse and disappeared. He



F. M. CLARK
Pharmacist and Mayor of Ely, Nevada

secured \$45 from the cash register. M. Sydenstricker, the clerk, snapped an antiquated 22-caliber revolver at the highwayman, but the cartridge failed to explode.

Charles Crawford, a pharmacist of Oakland, has accepted a position in the Rooney drug store of Chico.

The **Paso Robles Pharmacy** of Paso Robles was opened recently. It is under the management of F. R. Cummings.

Elwood Carmichael, a cousin of Dr. F. B. Elwood, has arrived from Rochelle, Ill., and taken a position in the drug store at Alhambra, Cal.

R. S. Oakford, president of the State Board of Pharmacy, has returned from the meeting of the board at San Francisco.

The board began its sessions in Los Angeles on the 9th of October, and has been in session ever since up to the 26th of the

month, the last ten days of which have been at San Francisco.

Mr. Oakford says that there were a number of important matters to come before the board at this meeting.

The **Anderson Pharmacy** of Tulare, conducted by James M. Anderson, has been sold to E. Allen Test, formerly of Pasadena. The trade name is "Test the Druggist." A. B. Elmore, who has been managing the business, will go to Bakersfield and engage in the oil business.

A **San Francisco attorney** asserts that the drug law is unconstitutional and wants merchants to contribute to fight. He probably is mistaken or needs a fee.

J. M. Wright, for many years with Langley & Michaels Co., and afterwards in business under the firm name of J. M. Wright & Co., died in St. Luke's Hospital on October 31st. He had been in poor health for a year or more.

Items from Marshfield, Ore.

J. Lee Brown, Ph. G., recently improved his pharmacy by the addition of new counter show cases and by otherwise brightening up. Mr. Brown now has one of the neatest and most up-to-date pharmacies in this part of the country, and is building up a very satisfactory business.

Henry Sengstacker, an old-time druggist, recently sold his drug store to Wm. McArthur, who came here from Colorado. The store has been improved and stock increased under the new management.

F. M. Parsons, who recently entered into partnership with H. Lockhart, hails from Idaho. The firm is known as the Lockhart-Parsons Drug Co.

Don McCrary, who was for some time in the employ of H. Sengstacker, and more recently of M. E. Evert, North Bend, expects to open a pharmacy here about the first of the year.

All the pig iron furnaces in the United States produced \$400,000,000 worth in 1906, an increase of 50 per cent in four years. Of this total the Steel Corporation is to be credited with 43 per cent, or 18.6 per cent of the total output of the world.—Popular Mechanics.

Drug News

LANGLEY & MICHAELS COMPANY MOVE

The removal of this firm from their temporary quarters, on Second Street, to their new fire-proof premises, on First Street, is an event of more than ordinary interest, from the fact that the new seven-story building is a model in many respects, and as a whole probably has no equal in the United States for elegance, convenience, safety from fire and general adaptability to the needs of a wholesale drug business. Want of space forbids our giving a full description of all the arrangements for the expeditious and correct filling of orders, etc., but a few items will surely interest our readers.

To San Franciscans who are unable to obtain all the fire insurance they want at 8 and 10 per cent, it will be a surprise to know that Langley & Michaels Co. get all the insurance they wish for on their building at much less than 1 per cent.) The reason is that the building itself is incombustible, being constructed entirely of concrete and iron. The interior fixtures and merchandise are all that can be set on fire, and for such a contingency, should it arise, the arrangements are the most complete that ingenuity has so far been able to devise. The sprinkler system is distributed throughout the entire structure, and the water is supplied to the sprinklers from immense tanks on the top of the building, where it is kept under a pressure of about five atmospheres. Vaults for keeping explosive chemicals and highly combustible goods are protected by air-tight non-combustible doors, which, like all the other doors in the building, are self-closing, being held open, when so needed, by a fusible chain, which melts as soon as a little heat touches it (160° F.) and allows the door to close by gravity. A number of large tanks on the top of the building, kept filled by automatic electric engines, provide a constant supply of water.

The salesroom is on the ground floor. Nothing but samples are kept in that room, which is a model of attractiveness and convenience, being large, well lighted and well arranged. A network of pneumatic tubes

carries the orders to the different departments. There are all kinds of devices for facilitating the filling of bottles, demijohns, barrels, etc., as well as for receiving, emptying and storing of large packages. In fact, everything seems to have been done to provide facilities for the transaction of a large business that is full of small details.

We are pleased to know that the firm reports that the increase in their business fully warrants their expenditure to obtain these advantages.

We enclose as a supplement a half-tone of this unique building.

The Barnes, Crosby Co., 215 Madison Street, Chicago, are offering to furnish their high-grade BIOTONE post cards from photographs furnished of buildings, interiors, street scenes, or any subject desired to be reproduced at 5.85 per thousand. They do not make less than one thousand of each subject. This price includes one or two lines of reading matter on same side of card as picture. The color may be brown, black or blue, as selected; time required, about three weeks.

Their QUADROTONE cards, which are in natural, bright colors, will be furnished in lots of two thousand of a subject at a rate of \$9.50 per thousand; time required for delivery, about five weeks.

WOMEN'S PHARMACEUTICAL ASSOCIATION

The monthly meeting of the Women's Pharmaceutical Association was held in the alumni room of the California College of Pharmacy, Friday evening, October 25th. The meeting was well attended, in spite of the inclement weather.

A paper on "Coal and Its Relation to Pharmacy" was read by Miss Nelson, '04. Few pharmacists realize how many substances are indirectly made from coal, and the writer briefly outlined the manufacture of some of our



LANGLEY & MICHAELS CO.
SAN FRANCISCO
1907

Drug News

LANGLEY & MICHAEL'S COMPANY

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arranged. A network of pneumatic tubes

from coal, and the writer briefly out-
lined the manufacture of some of our

most useful remedies. The paper was much enjoyed by the members present.

The November meeting will be held at the College Building on Friday, November 22d, at 8:00 p. m.

Mrs. Philip will have a paper for that evening. All members should come.

CLARISSA ROEHR,
President.

College Gets \$125,000 from Potter Estate

Boston, Oct. 14.—Word has been received by the trustees of the Massachusetts College of Pharmacy from the trustees of the will of the late Warren D. Potter, of the Potter Drug & Chemical Co., that the Massachusetts College of Pharmacy will participate in the residue of the Potter estate, and that the college's share will approach or exceed \$125,000. The college has already, within the past year, received the original bequest, which, with accumulated interest, amounted to \$58,000. A committee for the trustees, of which George L. Roskell is chairman, has in hand a plan to erect an appropriate tablet on the college building in memory of Warren D. Potter.—Pharm. Era.

Will Test Effect of Drugs on System

Washington, D. C., Oct. 12.—A new course in the department of medicine of the George Washington University that is likely to attract considerable attention, will consist of actual experimental tests in the laboratory of the effect of cocaine and morphine on the human system. The effect of other drugs will also be taken up. Original research work will be encouraged, as modern medical science demands that practitioners understand thoroughly the uses to which poisons may be put and their limitations.—Pharm. Era.

Columbus, O., Druggists Pass Resolutions on Early Closing

Columbus, O., Oct. 19.—At a meeting of the Columbus Retail Druggists' Association a few evenings ago resolutions endorsing the early closing movement were passed. A committee is to be appointed by the president to visit all the druggists of the city to try to get them to close their stores not

later than 8:30 each evening. About 75 have already agreed to the proposition.

The drug clerks' union has received from the international secretary-treasurer permission to use the name "The California Drug Clerks' Association." Since the San Francisco body has been granted State jurisdiction it has made considerable progress. In two weeks it has elected 32 applicants to membership. Twenty more applications have been received and reported to the investigating committee. All applicants must be registered. The minimum wages paid at this time are: to licentiates, \$100; assistants, \$75 per month, and for relief work, 50 cents per hour. No member of the union is permitted to work for more than 10 hours in 24. The union now maintains an employment agency at 1422 Steiner Street. In the last two weeks the agency has received a number of requests for clerks and has supplied the demand.

Cost of Enforcing the Pure Food and Drugs Law

Congress, at its approaching session, will be asked to appropriate \$1,000,000 to enforce the pure food and drugs act.

"We have, I think," said Mr. Wiley, chief of the Bureau of Chemistry, "in the neighborhood of \$650,000 available to carry on the pure food work, but it already has been demonstrated that this sum will not be sufficient to meet the needs.

"We expect to ask Congress to give us an appropriation of \$1,000,000 for the next year."

The pure food law passed at the last session of Congress went into effect on the first of the present month. The board of food and drug inspection has refused to extend for one year the old labeling system, in order to permit the working off of the stuff which had accumulated.

Holders of cascara bark on this Coast have been encouraged recently by evidences of improvement in the Eastern market. There is reason to believe, according to reports from the East, that when money conditions again adjust themselves the market will take on a better tone.

The National Association of Manufacturers of Food Products, comprising

the leading makers of preserves, jams, pickles, etc., in the country, held its quarterly meeting in New York City at the Hotel Imperial. The outcome of the session was a thorough discussion of the trade's problems, especially the benzoate of soda question, and a determination to make a stand in favor of the pure food law, but equally firm in favor of a continuance of the use of benzoate of soda in food products.

LARGEST RETAIL DRUG STORE IN THE WORLD

The old Nickolska Pharmacy in Moscow is the largest retail drug store in the world. About 700 people are employed in the business, and often as many as 2,000 prescriptions are com-

pounded in a day.—McPike's Bi-Monthly.

Wanted—First-class drug clerk, capable to manage a store. One with some money and willing to acquire an interest preferred. Address J. M. Wilcox, 4253 18th Street, San Francisco.

WANTED—To buy a drug store in San Francisco, or within 50 miles of it. Must bear full investigation and cost not over \$3,000. Address "Peasey," care Pacific Pharmacist, 410 Kearny Street.

American Pharmaceutical Ass'n.
Hot Springs, Ark., Nov. 7, 1908

CALIFORNIA STATE BOARD OF PHARMACY

The following is the list of the successful candidates at the October sessions of the Board:

Licentiates.

Fred V. Alter
Fred W. Jensen
E. E. Robinson
John A. Bowie
C. A. Buck
Ambrose L. Faass
George W. Hahn
Alex R. Hoffmann
O. Earl Longstreth
George A. Premier
H. H. Rathbun
John R. Skrondal
Herman G. Brownfield
John S. Clark
Wm. J. Fretwell
Chas. R. Hendry
Robt. L. Hunsaker
Chas. W. Montgomery
J. G. Priestley
C. S. Tirrell

H. R. Anson
Fred F. Marshall
W. E. Baldwin
Wm. S. Branner
James A. Clinton
Glenn F. Foulke
Raymond N. Hards
Frederick C. Lang
M. LaClare Lloyd
David Rapoport
Jas. H. Roseberry
Wirt C. Williams
H. A. Barber
Fred J. Crittenden
George N. Hardwick
Margaret J. Hollister
Geo. T. Mallery
Frank Morgan
Frank Sohn
B. F. Weeks

David E. Jacobs
George C. Malloy
Wm. S. Bartlett
David J. Brisco
Wilfred B. Crawley
Justice B. Guest
Frank A. Hoffman
Newton A. Lark
J. E. Parsons
W. E. Rathke
H. Joseph Schumann
Carroll V. Allen
Stanley Blaustein
Lewis R. Edwards
H. C. Henderson
Cary N. Hopkins
Wm. H. Matthews
Max Paluka
Joseph W. Stivers
David Wight, Jr.

Assistants.

Jas. Andrew Arkin
Robt. G. Hamilton
Frederick G. Musso
W. M. Proctor
Grover C. Besser
Maurice B. Moore

M. Enid Cardwell
L. H. Stone
Aron S. Pencovic
Ralph B. Rutherford
Ferdinand W. Hinkle
Joseph Sharp

C. J. Dunnigan
William E. Brenner
L. M. A. Peshlian
Frank D. Tallman
Harry A. Huntoon

The next meeting of the board will be held in Los Angeles commencing on Wednesday, February 5, 1908, and continued in San Francisco during the week commencing Monday, February 10, 1908.

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

THE MARKET

The past month has brought changes in market values of a number of leading staples. In sympathy with the higher cost of Quicksilver, all Mercurial preparations are marked up.

Glycerin and Alcohol exhibit an upward tendency; the former is $\frac{1}{2}$ cent and the latter 2 cents higher.

Strychnine has advanced 5 cents per ounce.

Camphor has dropped 5 cents and Opium 75 cents per pound. With the exception of Cubebs and Wormwood, which are higher, and Cotton Seed, which is lower, the oil market shows no material change in values.

The list below indicates the principal fluctuations:

Advanced.

Declined.

Acetanilid	Balsam Peru
Acid Oxalic	Bluestone
Alcohol	Borax
Aloin	Camphor
Cacao Butter	Codeia
Caffeine	Collodion
Calomel	Ether Sulphuric
Corrosive Sublimate	Lithia Salts
Dandelion	Oil Bergamot
Glycerin	Oil Cloves
Golden Seal	Oil Cottonseed
Manna	Oil Spearmint
Oil Wormwood	Opium
Seed Caraway	Resorcinol
Strychnia	Silver Nitrate
Thymol	Terpin Hydrate

ACETANILID. 1-lb. cart. incl.....lb	38
Powdr., 1-lb. cart. incl.....lb	38
ACETONE. Technical.....lb	45
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....lb	20
5-lb bottles, ".....lb	15
Glacial, M. C. W. lb	44
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure.....lb	14
Arsenous, Lumps, Pure lb	8
Arsenous, Powd., Pure lb	8
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	57
Benzoic, from Toluol, M. C. W.....oz	13
Benzoic, True from Benzoin.....lb	35-1 50
Benzoic, from Toluene, 1-oz. cartons.....oz	13
Benzoic, from Toluene lb	55-65
Boracic lb	16-18
Boracic, powd., M. C. W.....lb	19
Boracic, im. powd., C. P., 1-lb cart. incl..lb	27
Boracic, Squibb's, 1-lb bottle.....lb	45
Boric, H. P. lb	28
Boric, powd., pure lb	20
Boric, Impalp., powd. lb	28
Butyric, 100% oz	29
Butyric, H. P. lb	2 14

Cacodylic, $\frac{1}{8}$ oz	4 00
Camphoric oz	49
Carbolic, Calvert's No. 1.....lb	2 00
Carbolic, Calvert's No. 2.....lb	1 50
Carbolic, 1-lb tin, M.C.W., gilt label....lb	28
Carbolic, M.C.W., 5-lb can, gilt label....lb	25
Carbolic, M.C.W., 10-lb can, gilt label...lb	24
Carbolic, M.C.W., 25-lb can, gilt label....lb	22
Carbolic, Loose, crys. lb	70
Carbolic, Solution, 1-lb. bot.....doz	2 50
Carbolic, Crude gal	40-50
Chromic, 1-oz vials oz	15
Chrysophanic, true, M.C.W., 1-oz vials..oz	45
Cinnamic, P. W. R.....oz	39
Citric, crys lb	62-65
Gallic, 1-oz cartons oz	11
Gallic lb	70
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34
Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10
Hydriodic (Sp. gr. 1.50).....oz	42
Hydriodic (Sp. gr. 1.70).....oz	52
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39
Hydrocyanic, U. S. P., Scheele's.....oz	35
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30
Hydrofluoric, $\frac{1}{2}$ s, g. p. bots. incl. " ..lb	1 80
Hydrofluoric, $\frac{1}{4}$ s, g. p. bots. incl. " ..lb	2 25
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19
Lactic, conc., 1-oz vials, M. C. W.....oz	12
Lactic, conc., 1s lb	79
Lactic, dilute, 1-oz vials, M. C. W.....oz	8
Muriatic, carboys lb	3 $\frac{1}{4}$
Muriatic, 6-lb bots.....each	75
Muriatic, C. P., 6-lb bots.....lb	22
Muriatic, C. P., 1-lb bots.....lb	38
Nitric, carboys. lb	8
Nitric, 7-lb bots.....ea	1 10
Nitric, C. P., 7-lb bots.....lb	22
Nitric, 1-lb bots. lb	40
Nitro-Muriatic lb	40
Nitrous, fuming lb	65
Oxalic. lb	14-16
Oxalic, chem. pure, M. C. W.....lb	30
Phosphoric, glacial lb	64
Phosphoric, syrupy (85%) lb	55
Phosphoric, diluted, M. C. W.....lb	25
Phosphoric, M. C. W., U. S. P., 50%..lb	40
Phosphoric, glacial, 1-oz vials.....oz	11
Phosphoric, glacial, 1s, M. C. W.....lb	64
Picric lb	60-70
Pyrogallic, Resublimated oz	27
Pyrogallic, 1-lb cans lb	2 35
Pyrogallic, $\frac{1}{2}$ -lb cans lb	2 45
Pyrogallic, $\frac{1}{4}$ -lb cans lb	2 55
Pyroligneous gal	40
Salicylic, 1-lb cartons lb	46
Salicylic, from Oil Wintergreen.....oz	44
Salicylic, Amorph. lb	46
Succinic, oz bottles oz	1 14
Sulphuric, Aromatic lb	75

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Sulphuric, carboys	lb	2-2 1/4	Chloride, see "Muriate."		
Sulphuric, 9-lb bottles	each	1 00	Citrate, 1-oz. vials, M. C. W.....	oz	15
Sulphuric, C. P., 9-lb. bottles.....	lb	22	Hypophosphite, 1-oz vials, M. C. W.....	oz	21
Sulphuric, C. P., 1-lb bottles.....	lb	38	Hypophosphite, M. C. W.	lb	1 70
Sulphurous, U. S. P., solution.....	lb	25	Iodide, 1-oz. vials, M. C. W.....	oz	38
Tannic.	lb	85-90	Muriate, lump.	lb	14-16
Tannic, P. W. R.....	lb	1 15	Muriate, gran.	lb	10-12
Tartaric, crystallized	lb	39-45	Muriate, gran., pure, 1-lb cartons.....	lb	20
Tartaric, powdered	lb	39-45	Muriate, powdered, pure.....	lb	19
Tri-chlor-acetic	oz	32	Muriate, Po	lb	17
Valerianic	oz	20	Muriate, Po., Squibb's	lb	35
ACONITINE. Amorphous	dr	1 40	Nitrate	lb	44
Cryst.	dr	1 40	Oxalate	lb	52
ADAPES LANAE. B. P.	lb	35	Phosphate	lb	84
AGARIC. White.	lb	45	Salicylate	lb	1 10
ALBOLINE.	lb	50	Salicylate	oz	13
5-lbs	lb	45	Succinate	oz	1 20
Liquid	lb	50	Sulphate, com'l	lb	12
Liquid, 5-lbs	lb	45	Sulphate, C. P.	oz	29
AGURIN	oz	1 70	Sulpho Cyanate, pure	oz	10
ALBUMEN. Egg.	lb	1 45	Valerianate, cryst., 1-oz vials.....	oz	24
ALCOHOL. Absolute.	qt	1 00	Valerianate, cryst.	lb	1 75
94%, 10-gal, case	gal	2 93	AMMONOL	oz	1 05
94%, 5-gal. case	gal	2 98	AMYL. Acetate	lb	79
Denatured, 5-gal. can.....	gal	70	Butyrate, M. C. W.	oz	30
Wood, 5-gal. case.	gal	75	Nitrite	oz	29
Wood, Columbian Spirits, 5 gal. in case.gal	1 02		Valerianate, M. C. W.	lb	2 59
Wood, Columbian Spirits, barrels.....	gal	85	ANNATTO. Roll	lb	60
Wood, Columbian Spirits, 1/2 barrels....	gal	95	ANODYNE. Hoffman's, 1-lb bottle.....	lb	75
Cologne Spirits, 5 cents advance over price of Alcohol.			ANTHRASOL	oz	60
ALDEHYDE. Conct.	oz	25	ANTIFEBRIN	oz	17
ALLSPICE.	lb	17	ANTI-KAMNIA and its combinations.....	oz	1 00
Powdered	lb	20	10-oz lots for \$9.25; 25-oz for \$22.80		
ALMOND MEAL.	lb	45	Tablets, Vest Pocket	doz	1 75
ALMONDS. Bitter, shelled.	lb	45	Tablets, Vest Pocket, 1 gross, 5% off.		
Sweet, shelled.	lb	45	ANTIMONY. Black, powdered, pure.....	lb	15
ALOIN. 1-oz vials	oz	15	Black, powdered, commercial	lb	10
ALUM. Ammonio-Ferric, M. C. W.	lb	34	Chloride, cryst., 1-oz vials.....	oz	22
Chrome	lb	21	Chloride, sol. (Butter of)	lb	39
Burnt	lb	15	Oxysulphuret (Kermes Mineral)	lb	1 00
Ground	lb	7-9	Potassium Tartrate, powdered	lb	45
Lump.	lb	5-8	Sulphuret, precipitated	lb	92
Powdered.	lb	7-9	ANTINOSINE	oz	2 10
ALUMINUM. Aceto-Tartrate, M. C. W...oz	20		ANTIPYRIN. Knorr's	oz	35
Bromide, M. C. W.....	oz	29	New	oz	25
Chloride, M. C. W.....	lb	79	APIOL. Fluid Green	oz	37
Chloride, M. C. W.....	oz	14	APOLSYIN. S. & G.	oz	65
Hydrated, pure, M. C. W.....	lb	79	APOMORPHINE. Hydrochlor. A m o r.,		
Metallic, M. C. W.....	oz	17	1/8-oz vial	oz	3 50
Sulphate, pure, M. C. W.....	lb	25-29	Mur. cryst.	oz	8 50
ALUMNOL	oz	60	Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	4 00	
AMIDOL. 1-oz. can	oz	65	ARISTOL	oz	1 80
AMMONIA. Spirits of	lb	75	ARGOLS. Red	lb	15
Spirits of, aromatic	lb	75	Red, powdered	lb	20
Aqua, 26 deg., 1-lb. bot.....	lb	20	ARGYROL	oz	1 50
Aqua, 26 deg., 4-lb bot.....	lb	16	ARROWROOT. St. Vincent.....	lb	18-20
Aqua, 26 deg., 5 gal. can.....	lb	11	Taylor's Bermuda, 1/4s and 1/2s.....	lb	35
Aqua, 26 deg., carboy.....	lb	9 1/2	Taylor's Bermuda, bulk	lb	35
Aqua, Washing, 5-gal. can.....	gal	50	ARSENIC. Bromide, 1-oz vials, M. C. W...oz	27	
AMMONIUM. Acetate, cryst., M. C. W...oz	14		Chloride, sol., M. C. W.....	lb	30
Arseniate, 1-oz vials, M. C. W.....	oz	22	Iodide, 1-oz vials, M. C. W.....	oz	44
Benzoate, 1-oz vials, M. C. W.....	oz	14	Metallic	lb	45
Benzoate, M. C. W.	lb	1 14	Red, powdered	lb	15
Bichromate, 1-oz vials, M. C. W.....	oz	14	Solution (Donovan's)	lb	40
Bromide, 1-oz vials, M. C. W.....	oz	10	Solution (Fowler's)	lb	30
Bromide, M. C. W.	lb	46	Sulphured, red powdered	lb	33
Carbonate.	lb	15-18	Sulphured, yellow powdered	lb	33
Carbonate, powdered	lb	20	White, lump	lb	30

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White, powdered, commercial.....lb	18	Elm, powdered, ¼s.....lb	30
Yellow (orpiment) lb	35	Elm, powdered, ⅛s.....lb	35
ASBESTOS. Fibrous, gro.....lb	20	Elm, powdered, ozs.....lb	40
ASPARAGIN. ⅛-oz vials oz	1 50	Hemlock, pressed, 1-lb. lb	25
ASPIRIN oz	43	Hemlock, powdered. lb	30
ATROPIA. Pure, ⅛-oz vials oz	7 35	Jamaica Dogwood, pressed, 1-lb.....lb	35
Sulphate, ⅛-oz vials oz	6 25	Jamaica Dogwood, powdered, 1-lb.....lb	35
BALSAM. Copaiba, 8-lb can.....lb	90	Mezereon, pressed, 1-lb.....lb	28
Copaiba, 5-lb bottle.....lb	95	Oak, red, pressed, 1-lb.....lb	22
Copaiba, 1-lb bottle.....lb	1 05	Oak, white, powdered. lb	22
Copaiba, solidified lb	1 25	Oak, white, pressed, 1-lb.....lb	22
Fir, Canada lb	75-80	Poplar, white, powdered, 1-lb.....lb	25
Fir, Oregon. lb	50-55	Poplar, white, pressed, 1-lb lb	25
Gurgun lb	40	Poplar, yellow, pressed, 1-lb.....lb	25
Peru lb	3 25	Prickly Ash, powdered lb	40
Sulphur lb	60	Prickly Ash, pressed, 1-lb.....lb	33
Tolu lb	65	Quebracho lb	35
BARIUM. Acetate, 1-oz vials, M. C. W...oz	16	Sassafras. lb	28
Carbonate, M. C. W.....lb	37	Sassafras, powdered lb	25
Carbonate, precip. lb	30	Simaruba lb	50
Chloride, chemically pure, M. C. W.....lb	33	Soap Tree lb	10-12
Nitrate, M. C. W. lb	23	Soap Tree, ground lb	15
Sulphide, commercial lb	43	Soap Tree, powdered. lb	15
Sulphide, pure lb	53	Sumac, pressed, 1-lb.....lb	25
Sulphate, M. C. W. lb	13	Tamarac, pressed, 1-lb lb	25
BARK. Alder, black, pressed, 1-lb.....lb	25	Wahoo Root, pressed, 1-lb.....lb	33
Alder, red or tag, pressed, 1-lb.....lb	24	Wild Cherry. lb	16
Angostura lb	30	Wild Cherry, ground. lb	18
Ash, black, pressed, 1-lb.....lb	20	Wild Cherry, powdered lb	20
Ash, mountain, pressed, 1-lb.....lb	24	BAY RUM. Domestic gal	2 25
Ash, white, pressed, 1-lb.....lb	25	Imported gal	3 00
Barberry, pressed, 1-lb.....lb	30	BEANS. Calabar. lb	40
Barberry, powdered lb	35	Tonka, Angostura lb	1 35
Bayberry, pressed, 1-lb. lb	25	Vanilla, short, true Mexican.....lb	8 50
Bayberry, powdered. lb	30	Vanilla, long, true Mexican.....lb	9 50
Birch, pressed, 1-lb.....lb	24	Vanilla, Tahiti lb	1 50
Black Haw, powdered lb	35	BEBEERINE. Pure, 1-oz vials oz	2 04
Black Haw, pressed, 1-lb.....lb	30	Sulphate, 1-oz vials oz	1 49
Black Willow, pressed, 1-lb.....lb	25	BENZOLE. Pure lb	35
Blackberry. lb	20	BENZIN. Gallon gal	30
Buckthorn, pressed, 1-lb lb	25	5 and 10 gallons gal	25
Butternut, pressed, 1-lb lb	25	Pints doz	1 60
Calisaya, yellow, commercial. lb	30	BERBERINE. Hydrochloride oz	2 55
Calisaya, yellow, commercial, powd.....lb	32	Sulphate oz	2 29
Calisaya, East India. lb	42	BERRIES. Buckthorn lb	30
Calisaya, powdered. lb	45	Cocculus Indicus lb	17
Canella lb	30	Cubeb, stemless lb	30
Canella, powdered lb	35	Cubeb, powdered lb	30
Cascara, Sagrada. lb	18	Elder lb	30
Cascara, Sagrada, powdered. lb	20	Juniper, Italian lb	10
Cascarilla lb	25	Poke lb	25
Cascarilla, powdered lb	30	Prickly Ash. lb	40
Cassia. lb	22	Sumac lb	25
Cassia, powdered lb	25	Sumac, powdered lb	30
Cinchona, red. lb	45-50	BETOL lb	60
Cinchona, red powdered. lb	45-50	BISMUTH. Acetate, M. C. W.....oz	36
Cinnamon, Ceylon. lb	40 50	Citrate, M. C. W.....lb	2 89
Cinnamon, Ceylon, powdered. lb	40-50	Citrate, M. C. W.....oz	26
Cotton Root, powdered. lb	35	Citrate and Ammonia, M. C. W.....oz	26
Cotton Root, pressed, 1-lb.....lb	35	Citrate and Ammonia, M. C. W.....lb	2 82
Cramp, powdered lb	25	Lactate oz	44
Cramp, pressed, 1-lb lb	25	Metallic lb	2 50
Cundurango lb	45	Nitrate, M. C. W.....oz	24
Cundurango, powdered lb	50	Oxide, Hydrated, M. C. W.....lb	3 68
Dogwood, pressed, 1-lb.....lb	20	Oxide Hydrated, M. C. W.....oz	34
Dogwood, powdered lb	25	Oxychloride, M. C. W.....lb	2 73
Elder, pressed, 1-lb.....lb	35	Salicylate, 40% oz	23
Elm, select, slabs. lb	30	Salicylate, 64% Basic oz	25
Elm, ground, bulk lb	30	Salicylate, 64%, M. C. W.....lb	2 65
Elm, powdered lb	30	Subbenzoate oz	32

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Subcarbonate	lb	2	67	Rock, on strings	lb	15
Subgallate	oz		25	Rock, brown	lb	16
Subiodide, M. C. W.	lb	5	09	Rock, red	lb	15
Subiodide, 1-oz vials, M. C. W.	oz		39	Rock, white	lb	14
Subnitrate, M. C. W.	lb	2	37	CANTHARIDES. Russian, powdered.	lb	25
Subnitrate, P. W. R.	lb	2	37	CAPSICUM. African, pods	lb	30
Tannic, 1-oz vials, M. C. W.	oz		27	African, powdered	lb	20
Valerianate, 1/8s	oz		62	Bombay	lb	30
BLUE MASS	lb		65	CAMEL	gal, \$1.25.	30
Powdered	lb		75	CARBON. Bisulphide	lb	30
BLUE VITROL. Barrels, 7 1/2	lb	10-14		Bisulphide, 50-lb cans	ea	5 18
Powdered	lb		18	Bisulphide, Wheeler's 50-lb can.	ea	5 18
BOLE. Armenian	lb		18	Bisulphide, 1-gal cans	gal	1 43
BONE ASH	lb	6-8		Bisulphide, quart bottles	doz	4 50
BORAX. C. P., Squibb's	lb		33	CARMINE. No. 40.	oz	40
Pacific Coast Borax Co., 1-lb.	doz	1	14	No. 40.	lb	4 50
Pacific Coast Borax Co., 3/4-lb.	doz		90	CASSIA FISTULA	lb	20
Pacific Coast Borax Co., 1/4-lb.	doz		48	CASTOR FIBER.	oz	1 50
Powdered	lb	8-12		Castor Fiber, powdered	oz	1 75
Pure Granular	lb		25	CERATE. Cantharides	lb	1 00
Refined	lb	8-12		Goulard's, U. S. P.	lb	70
BOROFORMOL. Pints	doz	7	50	Resin, U. S. P.	lb	50
BOROLYCEERIDE Solution.	lb		60	Savin	lb	50
BROMOFORM	oz		20	Simple	lb	70
BROMINE	lb		83	Spermacti	lb	60
Chloride, solution	oz		60	Turner's	lb	60
BRUCINE. 1/8-oz vials, M. C. W.	oz	1	75	Zinc, Carbonate, true	lb	60
BRUCINE	oz	1	75	Zinc, Oxide	lb	60
Phosphate	oz	1	75	CERIUM. Oxalate	oz	09
Sulphate, 1/8-oz vials	oz	1	75	Oxalate, 1-lb cartons.	lb	52
BUDS. Balm of Gilead	lb		60	CHALK. Crayons, white	lb	15
Cassia	lb		50	French, cut	lb	18-20
BUTTER CACAO. Ghirardelli	lb		70	French, powdered	lb	5-8
German	lb		72	Precipitated, English	lb	10-12
CADMIUM. Bromide, M. C. W.	oz		20	Prepared in drops, bulk	lb	7-8
Iodide, M. C. W., 1-oz vials.	oz		33	Prepared in drops, 5-lb boxes.	lb	8-10
Sulphate, M. C. W., 1-oz vials.	oz		24	Prepared pink, 8-lb boxes.	lb	10
CAFFEIN. Bromide, 1-oz vials.	oz		37	White, in lumps	lb	3-4
Citrated	oz		28	CHARCOAL. Animal	lb	8-10
Pure	oz		35	Willow, powdered	lb	15-20
Sulphate, 1/8-oz vials, Mallinckrodt's.	oz		60	CHINA CLAY	lb	10
Salicylate, true salt, 1/8s, Mallinckrodt's.	oz		60	CHINESE SHAVINGS	lb	60
CALAMINE	lb		18	CHINOIDINE. 1-oz rolls	oz	12
CALCIUM. Bromide, 1-oz vials, M. C. W.	oz		12	CHLORAL HYDRATE, CROTON, 1-oz vial		
Bromide, M. C. W.	lb		64	incl.	oz	35
Chloride, fused, M. C. W.	lb		64	Crystals, M. C. W., 1s.	lb	1 35
Chloride, granular, M. C. W.	lb		30	Crystals, M. C. W., 1/2s.	lb	1 45
Glycerylphosphate	oz		22	Crystals, M. C. W., 1/4-lb cartons.	lb	1 50
Hypophosphite, 1-oz vials.	oz		14	Crystals, M. C. W., ozs.	lb	2 10
Hypophosphite.	lb		89	Crystals, 1-lb g. s. b. incl., Schering.	lb	1 35
Hypophosphite and Sodium, 1-oz vials.	oz		16	Crystals, 1/2-lb g. s. b. incl., Schering.	lb	1 45
Hypophosphite and Sodium, M. C. W.	lb	1	09	Crystals, 1/4-lb g. s. b. incl., Schering.	lb	1 55
Iodide, 1-oz vials, M. C. W.	oz		37	Crystals, 1-oz g. s. vls. incl., Schering.	oz	17
Lactophosphate, soluble	lb	1	35	CHLORALAMID	25 gramme	80
Lactophosphate, soluble	oz		17	CHLOROFORM. 1-lb tin.	lb	52
Phosphate, precipitated, 1-lb cart.	lb		20	In 7-lb bottle	lb	42
Phosphide, 1-oz vials	oz		50	Squibb's, 1-500 gramme.	lb	90
Sulphate, pure	lb		49	CINCHONINE Alk'd pure 1-oz vials M.C.W.	oz	25
Sulphide, 1-oz vials	oz		10	Bisulphate, M. C. W.	oz	18
Sulphide	lb		37	Muriate, M. C. W.	oz	17
Sulphite	lb		84	Sulphate, 1-oz vials, M. C. W.	oz	17
Sulpho, carbolate, M. C. W.	oz		11	CINCHONIDINE Alk. pure 1-oz vls M.C.W.	oz	50
CALOMEL	lb	1	05	Bisulphate, 1-oz vials, M. C. W.	oz	30
Calomel, P. W. R., 1-lb boxes.	lb	1	05	Muriate, M. C. W.	oz	32
English, Howard's	lb	1	35	Salicylate, 1-oz vials, M. C. W.	oz	34
CAMPHOR. Monobromated, Mal'rodt's.	oz		25	Sulphate, 1-oz vials, M. C. W.	oz	30
Tar flake.	lb	5-7		Sulphate, 5-oz cans, M. C. W.	oz	25
Tar balls.	lb	5-7		Sulphate, 1-oz vials, P. W. R.	oz	28
CANDY. Coltsfoot Rock	lb		30	CLOVES. Zanzibar	lb	30
Horehound.	lb		12	Zanzibar, powdered	lb	35

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COBALT	lb	25	DATURINE. Alk., cryst., 5-gr.....	ea	75
Cobalt, powdered	lb	30	DEXTRIN.	lb	12-15
COCAINE. Alk., 1-oz vials, incl.....	oz	3 50	DIASTASE. of Malt	oz	1 14
Hydrochloride, Merck's	oz	2 65	DIGALEN. ½-oz bottles	ea	1 00
Hydrochloride Cryst., 1-oz v'ls, M.C.W.....	oz	2 65	DIGITALIN. ⅛-oz vials	oz	5 75
Hydrochloride Cryst., ½-oz v'ls, M.C.W.....	oz	2 80	DIONIN. ⅛s.	oz	6 25
Hydrochloride Cryst., ¼-oz v'ls, M.C.W.....	oz	2 90	15-gr vials	ea	35
Hydrochloride Cryst., ⅛-oz v'ls, M.C.W.....	oz	3 05	DOVER'S POWDER, U. S. P.....	lb	1 70
Hydrochloride, 1-oz vials, P. W. R.....	oz	2 65	DRAGON'S BLOOD, Mass.	lb	55
COCHINEAL. Honduras.	lb	60	Powdered	lb	85
Honduras, powdered.	lb	65	Reed's.	lb	85
CODEINE. Pure	oz	5 60	DIURETIN.	oz	1 80
Muriate	1-oz, \$5 35.....	⅛s	DUBOISINE. Sulphate, 10-gr vial.....		1 10
Phosphate, ⅛-oz vials	oz	5 30	EARTH, Fuller's, powdered.	lb	8-10
Sulphate, M. C. W.....	oz	5 35	EIKONOGEN, 1b, \$3.95; ½s, \$4.20.....	oz	37
Sulphate, 1-oz vials, P. W. R.....	oz	5 35	¼s.	lb	4 80
COLLODION	lb	71	ELATERIN. 15-gr vial		1 25
1-oz vials	doz	1 25	ELATERIUM, ⅛-oz vials	oz	2 75
Cantharidal	lb	1 85	EMERY. Flour.	lb	10-12
Cantharidal, 1-oz vials	doz	1 75	Grain.	lb	10-12
Flexible	lb	71	EMETIN (Resinoid)	oz	7 53
Flexible, 1-oz vials	doz	1 00	(Alkaloid), pure, 15-gr vial.....		1 25
COLCHICINE. Cryst., 15-grain.....	gr	14	ERGOT. Spanish.	lb	65
C. P., Amorph., 15-grain vials.....	gr	30	Spanish, powd.....	lb	65
COLOCYNTH. Apples, Trieste.....	lb	60-65	ERGOTIN. Bonjean	oz	39
Apples, powdered	lb	75	ERGOTOLE. S. & D.....	doz	4 50
COMPOSITION POWDER, 2-oz papers..	lb	35	ESERINE (Physostigmine), 5-gr Alkaloid..	gr	13
CONFECTION. Aromatic	lb	1 00	Sulphate, 5-gr vials	ea	50
Opium	lb	1 50	Sulphate, 10-gr vials	ea	1 00
Rose, U. S. P.	lb	65	Sulphate, 15-gr vials	ea	1 50
Senna, U. S. P.	lb	70	ETHER. Acetic, M. C. W., 1-lb bot.....	lb	59
Theriac	lb	1 25	Benzoic, 1-oz bot.	oz	34
COPPER. Acetate, cryst., C.P., M.C.W.....	lb	74	Butyric, 1-lb bot.	lb	1 70
Acetate, com'l, lump	lb	40	Chloric, U. S. P., M. C. W., 1-lb bot....	lb	64
Acetate, Po. Verdigris	lb	45	Chloric, concent., M. C. W., 1-lb bot....	lb	74
Ammoniated	lb	59	Formic, 1-lb bot.	lb	1 59
Arsenite, 1-oz vials, M. C. W.	oz	19	Hydrobromic, 1-oz bot.	oz	20
Arsenite, 1-oz vials	oz	19	Nitrous, conc., M. C. W., ¼-lb bot.....	lb	1 20
Bromide	oz	32	Nitrous, conc., M. C. W., ½-lb bot.....	lb	1 10
Iodide, M. C. W.	oz	44	Nitrous, conc., M. C. W., 1-lb bot.....	lb	1 00
Nitrate	lb	54	Nitrous Spirit, 4-lb bot.	lb	58
Sulphate, C. P., granulated, 1-lb. boxes..	lb	23	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can..	lb	44
Sulphate, Caustic Pencils	doz	1 75	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can..	lb	38
Sulphate, purified, 1-lb cartons.....	lb	21	Sulphuric, U.S.P., ¼-lb cans, P.W.R.....	lb	59
COPPERAS. bbls 1¼.....	lb	3-4	Sulphuric, U.S.P., 1-lb cans, P.W.R.....	lb	42
CORROSIVE SUBLIMATE	lb	95	Sulphuric, washed, 1-lb bot.....	lb	50
Powdered	lb	95	Sulphuric, Squibb's, in 1-500 gm cans....	ea	88
1-lb boxes, P. W. R.....	lb	95	Sulphuric, Squibb's, in 1-250 gm cans....	ea	49
COTOIN. Para, ⅛-oz.....	oz	14 00	Sulphuric, Squibb's, in 1-100 gm cans....	ea	22
COTTON. Negative.	oz	60	Valerianic	oz	30
COWHAGE. 1-oz cans	oz	55	ETHYL. Bromide	oz	20
CREAM TARTAR, pure, powdered.....	lb	34-37	Chloride, 10 gramme tubes Bengue.....	doz	5 00
Pure, powdered, 25-lb box.....	lb	30	Chloride, 30 gramme tubes Bengue.....	doz	10 00
CREOLIN. ½-lb.....	doz	4 00	Chlodire, 10 gramme	ea	40
1-lb	doz	8 00	Iodide (see Hydriodic Ether)	oz	54
CREOSOTE. Beechwood	lb	94	EUCALYPTOL	oz	16
½-lb	lb	1 10	EUCAINE. A or B, ⅛s.....	oz	3 60
¼-lb	lb	1 20	EUDOXINE.	oz	2 10
CREOSOTE CARBONATE	oz	65	Tablets, 3-gr.	oz	2 60
In ¼-lb	lb	9 25	Tablets, 5-gr.	oz	2 50
In ½-lb	lb	9 15	Tablets, 1-3 gr, ¼-oz bots.....	oz	3 00
In 1-lb	lb	9 10	EUKATROL, powd.....	oz	1 00
CROCUS MARTIS	lb	16	Tablets	oz	1 00
CUDBEAR	lb	30	EUROPHEN.	oz	1 80
CUMARIN	oz	45	EXALGINE.	oz	1 50
CUMENE (Cumol)	lb	1 10	EXTRACT. Licorice, Corigliano.	lb	45
CURCUMA. Powdered	lb	16	Licorice, Mellor & Rittenhouse.....	lb	27-30
CUTTLEFISH	lb	35	Licorice, M. & R., 25 and 50-lb box....	lb	26
Jeweler's	lb	85	Licorice, soft, perf., clearly soluble.....	lb	75
Powdered	lb	30	Licorice, Y. & S.....	lb	27-30

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Licorice, powd.	lb	35	GRAINS. Paradise.	lb	40
Logwood, bulk	lb	15	Powdered.	lb	45
Logwood, 1/4s.	lb	20	GUAIACOL. Carb.	oz	1 50
Logwood, 1/2s.	lb	18	Merck's.	oz	18
Logwood, 1s.	lb	16	GUARANA. Powd.	lb	3 25
Male Fern, U. S. P.	lb	2 25	GUM. Aloes, Barbadoes.	lb	50
Malt, dry	lb	1 25	Aloes, Barbadoes, powd.	lb	55
Witch Hazel	gal	80-90	Aloes, Cape.	lb	20
Witch Hazel, 5-gal kegs, Dickenson's.	gal	1 05	Aloes, Cape, powd.	lb	20-25
Witch Hazel, 10-gal kegs, Dickenson's.	gal	1 00	Aloes, Socotrine	lb	40
FAREOL.	oz	50	Aloes, Socotrine, powd.	lb	40
FENETOLE	lb	2 00	Ammoniac tears.	lb	40
FERRATIN. Powder or tablets.	oz	85	Arabic, Turkey, first pick.	lb	55
FLAKE WHITE. English.	lb	15	Arabic, Turkey, second pick.	lb	40
FLOUR. Gluten.	lb	15	Arabic, Turkey, sifted sorts.	lb	20
Rice.	lb	12	Arabic, first pick, granulated.	lb	58
FLOWERS. Althea.	lb	40	Arabic, first pick, powd.	lb	60-65
Arnica	lb	20-22	Asafoetida, Calcutta.	lb	40
Arnica, powd.	lb	25	Asafoetida, powd.	lb	45
Calendula, new	lb	90	Asphaltum.	lb	15
Chamomile, German, new.	lb	35	Benzoin, marble, select.	lb	50
Chamomile, Roman	lb	40	Benzoin, powd.	lb	55
Elder	lb	30	Camphor, bulk	lb	90
Elder, pressed.	oz	25	Camphor, 1-oz blocks	lb	93
Kooso.	lb	75	Camphor, 24 to lb	lb	93
Kooso, powd.	lb	80	Camphor, powd.	lb	1 10
Lavender.	lb	35	Catechu, refined.	lb	18
Mullein.	lb	1 00	Catechu, powd.	lb	30
Orange.	lb	1 10	Copal	lb	35
Poppy, red.	lb	75	Damar.	lb	38
Rose, red.	lb	1 20	Galbanum.	lb	1 00
Rosemary.	lb	35	Gamboge	lb	1 10
FLOUR SPAR. Powdered.	lb	25	Gamboge, powd.	lb	1 15
FORMALDEHYDE	lb	32	Guaiac.	lb	35
5-lb bot.	lb	25	Guaiac, powd.	lb	40
FORMALIN. S. & G.	lb	40	Kino, true.	lb	75
FORMIN	oz	18	Kino, true, powd.	lb	80
GADUOL	oz	37	Mastic tears	lb	80
GAMBIER.	lb	15	Myrrh, Turkey.	lb	35
GARANTOSE. 550 times sweeter than sugar.	lb	2 25	Myrrh, Turkey, powd.	lb	40
1-lb cans	oz	20	Olibanum tears	lb	30
1-oz cans	oz	65	Opium	lb	7 25
GELATIN. Cooper's, 12-lb case.	lb	1 50	Opium, powd.	lb	8 25
Coxe's.	doz	75	Sandarac.	lb	45
French Pink.	lb	55	Scammony, Aleppo.	oz	40
French Gold Label.	lb	40	Scammony, Virgin, true.	lb	75
French Silver Label.	lb	15	Shellac, bleached.	lb	75
GLASS. Powdered.	lb	25	Shellac, orange.	lb	70
Soluble.	lb	20	Shellac, ground.	lb	75
GLUCOSE. 1-lb bot.	lb	15	Spruce.	lb	1 50
GLUE. Common.	lb	25	Tamarac, true.	lb	1 25
White, No. 1.	lb	65	Thus.	lb	12
GLUTOL	oz	70	Tragacanth, ribbon.	lb	90
GLYCERINE. Price's.	lb	22	Tragacanth, powd.	lb	80
Pure, in 10-lb cans	lb	19 1/2	GUTTA PERCHA. Crude, shavings.	lb	1 75
Pure, in 50-lb cans	lb	32	Crude, sheets.	lb	1 75
GLYCEROPHOSPHATES. Iron	oz	22	HEDONAL.	oz	1 60
Lime	oz	29	HEMICRANIN	oz	90
Potash	oz	28	HEMOGALLOL	oz	80
Soda	oz	34	Tablets	100	80
GLYCYRRHIZIN. Ammoniated	oz	2 70	HEROIN. 1-oz.	oz	6 70
GOLD and Sod. Chlo., 15-gr v'ls, M.C.W.	doz	3 30	1/2-oz vial	oz	6 85
And Sodium Chlor., 15-gr vials, P.W.R.	doz	5 10	1/4-oz vial	oz	7 00
Chloride, 15-gr vials, M. C. W.	doz	5 10	15-gr vial	ea	29
Chloride, 15-gr vials, P. W. R.	doz	1 25	Hydrochloride, oz vial	oz	6 70
Mono-bromide, 15-gr vials.	ea	1 00	1/2-oz vial	oz	6 85
Tri-bromide, 15-gr vials	ea	2 00	1/4-oz vial	oz	7 00
Tri-cyanide, 15-gr vials	ea	60	15-gr vial	ea	29
GOOSE GREASE.	lb		HEXAMETHYLENAMINE	lb	1 45-1 60
			"	oz	16

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HIERA PICRA. lb	50	By Hydrogen lb	60
HOFFMAN'S ANODYNE. lb	75	Carbonate, precipitated. lb	18
HOMATROPINE, Alk'l'd, 5-gr vials.....ea	2 25	Carbonate, proto. lb	42
HOMATROPINE. Alk'l'd, 5-gr vials.....ea	2 25	Carbonate, saccharated. lb	45
Hydrobromate, 5-gr vials ea	1 75	Chloride, 1-oz vials.....oz	8
Hydrochlorate, 5-gr vials ea	2 10	Chloride, crystal. lb	34
HOMOGLOBIN. Powd oz	1 04	Chloride, sol. for tincture.....pt	35
HOPS, new, bulk. lb	37	Citrate, soluble, 1-oz vials.....oz	13
New, ozs. lb	50	Citrate, soluble, M.C.W. lb	75
New, ¼s, ½s. lb	40	Citrate and Quinine, sol., M. C. W....lb	2 00
HYDROCHINON oz	18	Citrate and Quinine with Strych., M.C.W.lb	2 55
.....lb	1 42	Citrate and Quinine with Strych., M.C.W.oz	26
HYDROGEN PEROXIDE, Drevet's U.S.P.,		Citrate and Strychnine, 1-oz vials, M.C.W.oz	13
1-lb bots. doz	3 00	Ferrocyanide, 1-oz vials, M. C. W.....oz	10
Drevet's U.S.P., ½-lb bots.....doz	1 90	Ferrocyanide, M. C. W.....lb	65
Drevet's U.S.P., ¼-lb bots.....doz	1 40	Filings.....lb	16
Marchand's, 1-lb bots.....doz	8 00	Glycerino Phosphate. oz	32
Marchand's, ½-lb bots.....doz	5 25	Hypophosphite, 1-oz vials, M. C. W.....oz	20
Marchand's, ¼-lb bots.....doz	3 80	Iodide, 1-oz vials, M. C. W.....oz	36
Marchand's, ⅛-lb bots.....doz	2 25	Lactate, 1-oz vials, M. C. W.....oz	10
M. C. W., 1-lb bots.....doz	3 00	Lactophosphate, 1-oz vials, M. C. W.....oz	19
M. C. W., ½-lb bots.....doz	1 80	Nitrate, sol., U. S. P., M. C. W.....lb	34
M. C. W., ¼-lb bots.....doz	1 20	Oxide, black. lb	49
Oakland, 1-lb bots.....doz	6 50	Oxide, brown, com'l lb	22
Oakland, ½-lb bots.....doz	4 00	Oxide, brqwn, pure lb	74
Oakland, ¼-lb bots.....doz	2 25	Peptonized oz	24
Oakland, 5-lb bots.....ea	1 59	Phosphate, precipitate. lb	39
HYDRO NAPHTHOL. oz	75	Phosphate, U. S. P., scales.....oz	13
HYDRASTINE. Alkaloid oz	10 04	Phosphate, U. S. P., scales.....lb	75
Hydrochloride oz	20 00	Pyrophosphate, soluble lb	75
HYDRASTININE. Hydrochloride, 15-gr vls.ea	3 00	Pyrophosphate, U. S. P., 1880.....oz	13
HYDROQUINONE oz	18	Pyrophosphate, U. S. P., 1880.....lb	75
HYOSCINE. Amorphous, 15-gr vials.....ea	2 00	Reduced (Quevenne's) lb	58
Hydrobromate, 5-gr vials ea	2 00	Reduced (Quevenne's) oz	10
Hydriodide, 5-gr vials ea	2 00	Salicylate, 1-oz vials, M. C. W.....oz	15
Sulphate, 5-gr vials ea	2 00	Subsulphate, M. C. W.....oz	6
HYOSCYAMINE. Alkaloid, crys. 15-gr vls.ea	4 75	Subsulphate, M. C. W.....lb	36
Amorphous gr	25	Subsulphate, sol., M. C. W.....lb	23
Hydrobromate, Amorph., 15-gr.....ea	3 00	Succinate oz	90
Sulphate, crys., 15-gr ea	3 03	Sulphate, dried. lb	20
Sulphate, Amorph., 5-gr vials.....ea	1 25	Sulphate, gran., pure.....lb	18
IATROL. oz	95	Sulphate, pure, cryst., M. C. W.....lb	20
ICHTHARGAN oz	3 00	Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13
ICHTHORFORM oz	1 00	Tannate, 1-oz vials, M. C. W.....oz	22
ICHTHYOL, 1-oz vials oz	32	Tartrate and Ammonia, M. C. W.....oz	11
¼s oz	4 25	Tartrate and Ammonia, M. C. W.....lb	72
½s oz	4 10	Tartrate and Potassium, M. C. W.....oz	10
1s oz	4 00	Tartrate and Potassium, scale, M. C. W...lb	58
INDIGO, Manila, extra.....lb	75	Tersulphate, sol., U. S. P.....lb	40
IODIPIN (10% Iodized Sesame oil).....oz	28	Valerianate. oz	22
IODINE, Bromide, 1-oz vials, M.C.W.....oz	47	IODOTHYRINE. oz	3 40
Chloride, 1-oz vials, M.C.W.....oz	52	ISINGLASS, American lb	1 05
Resublimed, 1-oz vials, M. C. W.....oz	35	Russian. lb	5 25
Resublimed, M. C. W.....lb	3 43	KAMALA. lb	65
Resublimed, 1-lb bot., P. W. R.....lb	3 33	Powd. lb	75
Burnham's, soluble. oz	1 00	KAOLIN.....lb	10
ODOFORM, bulk, M. C. W.....lb	3 85	KERATIN (Pepsinized), ⅛s oz	3 53
Iodoform, 1-lb bots., P. W. R.....lb	3 83	KOUSSO. lb	75
Cryst. or powd oz	34	Powd. lb	75
Deodorized. oz	54	KRYOFINE. oz	1 00
IODOL. oz	1 25	LACTUCARIUM oz	80
IRON, Acetate, dry, 1-oz vials, M.C.W....oz	24	LACTOPHEPIN. oz	1 00
Acetate, liquor. lb	44	LANOLIN. lb	80
Albuminate. oz	20	Lanae Adeps, 1-lb cans, B. J. D.....lb	35
Ammoniated, M. C. W.....lb	44	Lanae, British. lb	35
And Ammonium Cit lb	75	LANUM (Adeps Lanae Hydrosus) lb	40
Arsenate, 1-oz vials. oz	18	LARD, Benzoated, 5-lb cans.....lb	27
		LARGIN oz	1 75
		LEAD. Acetate, med. crys. or gran.....lb	33

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Acetate, white. lb	18	Chloride, in bbls of 350 lbs. lb	2 3/4
Acetate, white, powd. lb	25	Chloride, lb cans doz	90
Acetate, purified, gran., 1-lb cart., M.C.W. lb	33	Chloride, 1/2-lb cans doz	65
Bromide. oz	24	Chloride, 1/4-lb cans doz	45
Carbonate. lb	12	LITHARGE. lb	12
Chloride, 1-oz vials. oz	11	LITHIUM, Benzoate, 1-oz vials, M.C.W. oz	15
Chromate, M. C. W. lb	19	Bromide, 1-oz vials, M. C. W. oz	22
Iodide, 1-oz vials, M. C. W. oz	27	Carbonate oz	17
Nitrate, 1-lb boxes, M. C. W. lb	23	Citrate, 1-oz vials, M. C. W. oz	17
Nitrate, chemically pure, M. C. W. lb	40	Iodide oz	40
Oxide, chemically pure, M. C. W. lb	84	Salicylate, 1-oz vials, M. C. W. oz	15
Oxide lb	84	LITMUS. lb	50
Subacetate, sol. lb	35	Paper. doz	50
Sulphate, pure, M. C. W. lb	63	LODESTONE. lb	75
Tannate, 1-oz vials, M. C. W. oz	24	LONDON PURPLE. lb	20
LEAVES, Aconite, German. lb	30	LOSOPHAN. oz	80
Aconite, powd. lb	30	LUPULIN, German. lb	75
Aconite, pressed. oz	25	LYCOPodium. lb	75
Angelica, pressed. oz	25	LYCETOL. oz	4 25
Bay, bulk. lb	15	LYSOL, 1-gal. jugs. gal	4 00
Belladonna, English, bts. lb	25	Pints. doz	8 00
Belladonna. lb	30	MACE. lb	75
Belladonna, powd. lb	35	Powd. lb	75
Belladonna, pressed. oz	35	MADDER, Dutch. lb	15
Blessed Thistle, pressed. oz	34	MAGNESIUM, Benzoate, Mallinckrodt's. oz	24
Borage, pressed. oz	35	Bromide, Mallinckrodt's. oz	25
Buchu, long. lb	55	Calcined, Jennings', 1-lb cans. lb	85
Buchu, short. lb	40	Calcined, K. & M.'s, 1-lb cans. lb	75
Buchu, powd. lb	40	Calcined, K. & M.'s, heavy. lb	80
Buckbean, pressed. oz	30	Carbonate, Jennings', 2-oz. lb	35
Cocoa. lb	45	Carbonate, Jennings', 4-oz. lb	35
Conium. lb	30	Carbonate, K. & M.'s, 1-oz. lb	27
Conium, powd. lb	35	Carbonate, K. & M.'s, 2-oz. oz	23
Conium, pressed. oz	30	Carbonate, K. & M.'s, 4-oz. lb	23
Coltsfoot, pressed. oz	25	Carbonate, K. & M.'s, small sq. lb	60
Damiana. lb	30	Carbonate, powd., in 65-lb bbls. lb	13
Digitalis, pressed. oz	35	Carbonate, powd., in 10-lb boxes. lb	16
Digitalis. lb	35	Citrate, dry, English. lb	65
Digitalis, powd. lb	35	Citrate, sol. doz	1 75
Eucalyptus. lb	20	Glycerinophosphate oz	44
Grindelia Robusta lb	25	Hypophosphite, 1-oz vials, M. C. W. oz	20
Grindelia Squarosa lb	40	Hypophosphite, M. C. W. lb	1 69
Hemlock, pressed. oz	30	Hypophosphite oz	20
Henna. lb	50	Iodide, M. C. W. oz	47
Henna, powd. lb	55	Sulphite, Mallinckrodt's. lb	49
Henbane. lb	30	MANGANESE, Black, Oxide lb	8-10
Henbane, powd. lb	30	Phosphate, M. C. W. oz	18
Henbane, pressed, oz. lb	30	Carbonate, 1-oz vials, M. C. W. oz	14
Jaborandi. lb	35	Chloride, 1-oz vials, M. C. W. oz	14
Jaborandi, powd. lb	40	Hypophosphite, 1-oz vials, M. C. W. oz	20
Laurel. lb	25	Hypophosphite oz	20
Lovage, pressed, oz. lb	30	Iodide, 1-oz vials, M. C. W. oz	47
Lungwort, pressed, oz. lb	34	Peptonized oz	29
Marjoram, sweet lb	36	Phosphate, M. C. W. oz	18
Rosemary, bulk. lb	20	Sulphate, 1-oz vials, M. C. W. oz	9
Rosemary, pressed, oz. lb	25	MANNA, Large flake lb	1 15
Sage, oz. lb	25	Small flake lb	75
Savin, pressed, oz. lb	25	MENTHOL lb	3 40
Senna, Alexandria, garbeled. lb	30	Cryst., 1-oz vials, Mallinckrodt's. oz	35
Senna, Alexandria, powd. lb	30	Crystallized. lb	3 65
Senna, Tinnevelly, select. lb	25	MERCURY, Chloride lb	99
Stramonium, powd. lb	30	Ammoniate, d white precip. lb	1 25
Stramonium, pressed, oz. lb	25	Bisulphate lb	76
Thyme, pressed, oz. lb	25	Cyanide oz	28
Uva, Ursi. lb	20	Iodide, green, 1-oz vials, M. C. W. oz	24
Witch Hazel, pressed, oz. lb	25	Iodide, Red oz	26
LEECHES. ea	10	Iodide, red, 1-oz vials, M. C. W. oz	26
2 dozen lots. ea	8	Iodide, yellow, 1-oz vials, M. C. W. oz	24
LEPTANDRIN. oz	35	Nitrate, proto., 1-oz vials, M. C. W. oz	27
LIME, Chloride, 35-lb cans. lb	5	Nitrate, solution, 1-oz vials. oz	27

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Oxide, black, 1-oz vials.....oz	18	Cajuput (21-oz bottles).....lb	1 10-1 35
Oxide, red (red precip.).....lb	1 20	Calamus. oz	45
Oxide, yellow, 1-oz vials oz	19	Camphor, E. I. lb	45
Salicylate, M. C. W.....oz	27	Caraway, seed. lb	2 25
Subsulphate, 1-oz vials. oz	15	Cardamon. oz	2 50
Subsulphate. lb	1 06	Cassia lb	1 85-2 00
Sulphuret, black. lb	78	Castor, Baker's A. A.....gal	1 38-1 50
White Chalk, 1-lb cartons lb	46	Castor, Marsh's gal	1 34-1 45
METHYL, SALICYLATE. lb	80	Castor, 2-oz bottles.....doz	85
METHYLENE. Blue Medicinal oz	45	Castor, 4-oz bottles.....doz	1 25
MILK SUGAR, Cryst.....lb	33	Castor, 6-oz bottles.....doz	1 75
Powdered, bulk lb	23	Castor, 8-oz bottles.....doz	2 25
M. C. W., 1-lb cartons lb	25	Castor, 12-oz bottles.....doz	2 50
MORPHINE. Sulphate, 1/8s, 1-oz box, M.		Castor, 16-oz bottles.....doz	3 75
C. W. oz	3 90	Cedar lb	60-100
Sulphate, 1/8s, 2 1/2-oz box, M.C.W.....oz	3 85	Cedrat. oz	40
Sulphate, 1-oz vials, M.C.W.....oz	3 65	Celery. oz	1 40
Sulphate, 5-oz can, M.C.W.....oz	3 60	Chamomile, German. oz	5 00
Sulphate, 1/8s, 2 1/2-oz box, P. W. R.....oz	3 90	Chamomile, Roman. oz	1 75
Sulphate, 1-oz bot oz	3 65	China, Nut. gal	1 00
In 10-oz lots, 10c oz less.		Cinnamon, Ceylon. oz	90
Morphia, Acetate, 1/8s, M. C. W.....oz	4 25	Citronella lb	75-85
Morphia, Muriate, 1/8s, M. C. W.....oz	4 15	Cloves lb	1 50-1 75
Morphia, Valerianate, 1/8s, M. C. W.....oz	5 15	Cocanut lb	20-25
Other salts or Morphine subject to market		Codliver, White, Norwegian.....gal	1 65
price based on above.		Codliver, white, Norwegian, 5-gal cans..gal	1 50
MOSS, Iceland. lb	18	Cognac, green. oz	2 50
Irish. lb	15	Cologne. oz	50
Irish, bleached. lb	20	Copaiba.....lb	1 75
MUSK, Chinese oz	40	Coriander. oz	90
Tonquin, grain dr	3 25	Cotton Seed (salad), 5-gal can.....gal	95
MUSTARD, Colman's, 4-oz cans.....doz	1 75	Cotton Seed (salad), 1-gal can.....gal	1 20
Colman's, 5-lb cans lb	50	Croton, 24-oz bots.....lb	1 50-1 65
Ground, Domestic, 5-lb cans.....lb	18	Groton oz	20
NAPHTHALIN, Balls. lb	5-7	Cubebs lb	2 00-2 25
Resublimated lb	27	Ergot, Keith's. oz	57
Pure, 1-lb cartons, M. C. W.....lb	27	Erigeron, Keith's. oz	38
NAPHTHOL, Alpha. oz	30	Erigeron lb	2 75
Beta. oz	10	Eucalyptus lb	85
NICKEL. Bromide oz	32	Fennel Seed lb	2 25
Bromide, 1-oz vials, M.C.W.....oz	29	Fusil, purified. lb	80
Nickel and Ammonia Sulphate, M. C. W..lb	34	Geranium, Rose, Chris.....oz	75
Sulphate, 1-oz vials, M. C. W.....oz	9	Hemlock lb	85
Sulphate oz	10	Hydrocarbon. gal	1 25
NOSOPHEN. doz	4 50	Jasmin, alcoholic. lb	3 00
NUTGALLS, Aleppo. lb	30	Juniper Berries. lb	1 25-1 50
Aleppo, ground. lb	35	Juniper, wood. lb	75
Aleppo, powd. lb	35	Lard. gal	1 10
NUTMEGS, Macassar, large.....lb	60	Laurel, expressed. lb	60
Penang, powd. lb	65	Lavender, Flowers lb	3 85
NUTS, Areca lb	30	Lavender, Garden lb	1 25
Areca, powd. lb	40	Lemon lb	2 75
Kola. lb	35	Lemon, Sanderson's lb	3 00
Kola, powd. lb	40	Lemon, Grass lb	2 25
NUX VOMICA. lb	25	Linseed, raw gal	74
Powdered or rasped.....lb	25	Linseed, raw, case gal	67
OAKUM lb	15	Linseed, boiled gal	74
Surgeon's. lb	20	Linseed, boiled, case gal	69
OIL, Almonds, Bitter, true, Merck's.....lb	6 59	Mace, expressed. lb	1 75
Almonds, Bitter, Allen's.....oz	75	Male Fern, ethereal. oz	35
Almonds, Sweet, Allen's.....lb	75	Myrbane. lb	40
Almonds, Sweet. lb	45-60	Mullein.....oz	45
Amber, rectified. lb	60	Musk, alcoholic. oz	1 00
Anise. lb	2 00-2 25	Mustard, essential. oz	50
Bay Leaves, true oz	40	Mustard, expressed. gal	90
Bay Leaves lb	4 25-4 50	Neatsfoot, No. 1. gal	90
Benne.....gal	1 20	Neroli, Petal. oz	3 00
Bergamot lb	5 00-5 25	Neroli, Bigarade. oz	5 75
Birch Tar, rectified.....lb	1 25	Neroli, Petit Grain. oz	55
Cade.....lb	50	Nutmegs, essential. oz	35
		Olive, pure, Malaga.....gal	1 25

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Olive, California. gal	3 00	PEPPER, black, Singapore, sifted.....lb	30
Olive, ½-gals. gal	3 25	Black, powd. lb	30
Olive, small doz	3 75	White. lb	40
Olive, large. doz	7 50	White, powd. lb	40
Olive, imported. gal	2 00-2 10	PEPSIN, pure, U. S. P.....lb	4 50
Orange, bitter. lb	4 50	Powd. or scales. lb	4 50
Orange, sweet lb	3 25	Powd., Ph. G. III.....oz	25
Origanum, pure. lb	60	PEPTONE, Merck's, dry, from meat.....oz	34
Origanum, Chris. lb	1 85	PETROLATUM, 1-lb cans.....doz	2 00
Palm. lb	25	50-lb pails. lb	7
Patchouly.....oz	75	25-lb pails. lb	7½
Pennyroyal lb	4 00	10-lb cans. lb	9
Pepper, black. oz	20	5-lb cans. lb	10
Peppermint, Hotchkiss lb	3 25-3 50	Snow White, 50-lb pails.....lb	15½
Peppermint, Wayne Co. lb	2 75-3 00	Snow White, 25-lb pails.....lb	16½
Peppermint, Western lb	2 75-3 00	Snow White, 10-lb cans.....lb	18
Pimento. oz	30	Snow White, 5-lb cans.....lb	25
Pinus, Sylvestris, German. lb	1 50	Snow White, 1-lb cans.....lb	30
Pinus, Pumilio. lb	4 50	PHENACETINE. oz	33
Pinus Pumilio. oz	40	PHENILINE. oz	1 00
Rhodium oz	35	PHENOLPHTHALEIN oz	34
Rose, Kizanlik oz	6 25-6 50	PHOSPHORUS, 1-lb cans.....lb	85
Rosemary, flowers. lb	1 25-1 50	½-lb cans.....lb	95
Rue.....oz	40	¼-lb cans.....lb	1 05
Sandalwood, English. lb	5 50	Amorphous. lb	1 44
Sandalwood, German. lb	3 00-3 20	PIPERAZIN, Schering's 10-gm vials.....bot	1 50
Sassafras. lb	90-1 00	½-oz and 1-oz.....oz	4 25
Savin. lb	1 75	PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62
Spearmint lb	3 25	PIPE CLAY. lb	12
Sperm.....gal	1 00	PITCH, Burgundy lb	15
Spike. lb	35	PITH, Sassafras. lb	1 50
Spruce.....lb	85	PLATINUM and Barium Cyanide, cr.....gr	15
Tansy lb	5 00	And Potassium Chloride, 15-gr vials.....ea	80
Tar.....lb	25	Chloride oz	18 00
Thyme, white. lb	1 50	Chloride, solution, 10%.....oz	2 82
Turpentine, pure. lb	55	PODOPHYLLIN oz	30
Wine, light. oz	40	POPPY HEADS, German. lb	30
Wine, heavy. oz	50	POTASH, Babbitt's, 4 doz in case.....case	3 40
Wintergreen lb	4 00-4 25	Caustic, pure, by alcohol.....lb	60
Wormseed.....lb	3 75-4 00	Caustic, white. lb	37
Wormwood lb	5 00	Caustic, 10-lb cans.....lb	10-12
Ylang Ylang. oz	4 50	Solution (liq. potass.) lb	35
OINTMENT, Basilicon. lb	65	POTASSIUM. Acetate, M. C. W., 1-lb.....lb	42
Citrine. lb	65	Antimonate lb	1 09
Iodine.....lb	1 25	Arsenate, 1-oz vials oz	14
Mercurial, ½ m.....lb	65	Bicarbonate, cryst., M. C. W.....lb	20
Mercurial, ⅓ m.....lb	55	Bicarbonate, granulated, M. C. W.....lb	20
Stramonium. lb	75	Bicarbonate, powd. lb	20
Tar.....lb	50	Bichromate lb	18-20
Zinc, benzoated. lb	65	M. C. W. lb	34
Zinc, oxide. lb	65	Bromide, crys. or gran., M. C. W.....lb	32
OPIUM, powd. or gran., P. W. R.....lb	9 46	Carbonate, purified, M. C. W.....lb	41
ORTHOFORM. oz	1 40	Carbonate, bulk. lb	15
PANCREATIN. Pure oz	44	Caustic, pure lb	37
Pure, scales, P. D. & Co.....oz	50	Caustic, C. P. lb	2 59
PAPAIN, Boehringer. oz	75	Chlorate, cryst. lb	16-18
PARAFFINE, refined. lb	12-15	Chlorate, gran.; pure, M. C. W.....lb	22
PARALDEHYDE lb	99	Chlorate, powd. lb	16-18
.....oz	14	Chromate, yellow, neutral. lb	40
PARIS GREEN. lb	38-42	Citrate, M. C. W.....lb	72
PASTILLES, Fumigating, black.....lb	50	Cyanide, fused, M. C. W.....lb	45
Fumigating, red lb	50	Cyanide, C. P. 99%.....lb	52
PEARL ASH. lb	8-10	Cyanide, Miner's, 10-lb tin.....lb	28
PEEL, Orange, sweet, ground.....lb	20	Ferricyanide, chem. pure, M. C. W.....lb	1 04
Orange, bitter, coarse.....lb	20	Ferrocyanide, pure lb	59
Orange, bitter, powdered.....lb	20	Glycerinophosphate.....oz	26
Orange, sweet, quarters.....lb	20	Hypophosphite, M. C. W.....lb	99
PELLETIERINE, Sulphate, 15-gr vial.....	1 75	Iodide, M. C. W., 1-lb boxes.....lb	2 52
Tannate, 15-gr vial 35		Iodide, cryst. or gran., 1-lb boxes, P.W.R.lb	2 52

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Nitrate, cryst. lb	10-12	Alkanet lb	25
Nitrate, granulated. lb	10-12	Alkanet, powd. lb	30
Nitrate, chemically pure, M. C. W. lb	30	Angelica, pressed lb	20
Oxalate, neutral. lb	28	Angelica, powd lb	25
Permanganate, cryst., 1-oz vials. oz	8	Arnica, pressed lb	35
Permanganate, large cryst., pure, M.C.W. lb	27	Belladonna, pressed, lb. lb	25
Permanganate, small cryst. lb	25	Belladonna, powd. lb	28
Phosphate, 1-oz vials. oz	11	Berberis Aquif, pressed, lb. lb	45
Phosphate lb	64	Beth, pressed, lb. lb	30
Prussiate, red. lb	65	Beth, powd lb	35
Prussiate, yellow. lb	35	Blackberry, pressed, lb. lb	30
Sulphate, cryst. or powd. lb	16	Blood, pressed, lb. lb	30
Sulphate, chemically pure. lb	60	Blood, powd. lb	35
Sulphide (Liver Sulphur) lb	24	Blue Flag, pressed lb	25
Tartrate (soluble Tartar) lb	59	Burdock, pressed, lb. lb	25
POWDER, Antimonial. lb	85	Burdock, powd. lb	25
Aromatic. lb	1 25	Calamus, peeled lb	30
Carbolic Acid, disinfecting. doz	1 50	Calamus, white, peeled and split. lb	50
Chalk, aromatic. lb	75	Calamus, powd. lb	35
Chalk, compound. lb	75	Cohosh, black, pressed. lb	25
Chalk and Opium. lb	2 50	Cohosh, black, powd. lb	25
Composition, 2-oz papers. lb	35	Cohosh, blue, pressed, lb. lb	25
Dover's lb	1 70	Cohosh, blue, powd. lb	25
Insect, Buhach, 6-lb cans. lb	60	Colchicum lb	28
Insect, Dalmatian. lb	25-30	Colchicum, powd lb	35
Insect, Mrs. Hill's, 6-lb cans. lb	35	Columbo, foreign. lb	25
Jalap, comp. lb	1 00	Columbo, powd. lb	25
Licorice, comp. lb	25	Comfrey, pressed, lb. lb	25
Licorice, comp., 2-oz packages. doz	75	Comfrey, powd. lb	25
Rhubarb, comp. lb	1 50	Cranesbill, pressed, lb. lb	25
Tooth. lb	50	Culvers, pressed, lb. lb	25
PROPYLAMIN, 10% solution oz	55	Culvers, powd lb	30
Hydrochlorate, 1/8-oz vials. oz	3 50	Dandelion, Am., pressed, lb. lb	45
PROTARGOL. oz	1 25	Dandelion, powd. lb	45
PULVIS ANTIMONIALIS. lb	85	Dwarf Elder, pressed, lb. lb	35
PYOKTANIN, Blue or Yellow oz	1 50	Elecampane, pressed, lb. lb	25
PYRIDINE oz	32	Elecampane, powd lb	25
QUICKSILVER. lb	80	Gelsemium, pressed, lb. lb	25
QUINACETINE. oz	85	Gelsemium, powd lb	25
QUINALGIN. oz	1 25	Gentian lb	18
QUININE, Alkaloid, 1-oz vials, M.C.W. oz	58	Gentian, ground lb	20
Bisulphate, 1-oz vials, M.C.W. oz	28	Gentian, powd lb	20
Bisulphate, 5-oz cans, M.C.W. oz	26	Ginger, African. lb	17
Citrate, 1-oz vials, M.C.W. oz	57	Ginger, African, powd lb	18
Muriate, 1-oz vials, M.C.W. oz	51	Ginger, Jamaica, bleached. lb	27
Phosphate, 1-oz vials, M.C.W. oz	55	Ginger, Jamaica, bleached, powd. lb	34
Salicylate, 1-oz vials, M.C.W. oz	54	Ginseng lb	8 50-10 00
Sulphate, 1-oz cans, M.C.W. oz	28	Golden Seal lb	2 50
Sulphate, 5-oz cans, M.C.W. oz	25	Golden Seal, powd. lb	2 55
Sulphate, 25-oz cans, M.C.W. oz	21	Hellebore, black, pressed. lb	25
Sulphate, 50-oz cans, M.C.W. oz	20	Hellebore, black, powd. lb	25
Sulphate, 100-oz cans, M.C.W. oz	18	Hellebore, white, pressed, lb. lb	25
Sulphate, 1-oz cans, P. W. R. oz	28	Hellebore, white, powd. lb	25
Sulphate, 5-oz cans, P. W. R. oz	25	Indian Hemp, black, pressed, lb. lb	35
Sulphate, 25-oz cans, P. W. R. oz	21	Indian Hemp, black, powd lb	40
Sulphate, 100-oz cans, P. W. R. oz	18	Indian Hemp, white, pressed lb	25
Tannate, Neutral oz	38	Indian Hemp, white, powd lb	30
Tannate, 1-oz vials, M.C.W. oz	37	Ipecac, Rio, powd. lb	2 50
Valerianate, 1-oz vials, M.C.W. oz	57	Jalap lb	30
QUINOLINE oz	45	Jalap, powd lb	35
Tartarate oz	45	Kava Kava lb	50
RED SAUNDERS. lb	12	Ladies' Slipper, pressed, lb. lb	75
RESIN, Jalap oz	54	Licorice, select lb	16
Copaiba. lb	1 50	Licorice, pipestem lb	18
Scamony oz	40	Licorice, cut, Russian lb	20
RESORCINOL (Resorcin) M. C. W. lb	1 40	Licorice, powd lb	16-20
Resorcinol (Resorcin) M. C. W. oz	18	Mandrake, pressed, lb. lb	30
ROOT, Abscess, pressed, lb. lb	40	Mandrake, powd lb	35
Aconite, powd. lb	35	Marshmallow, cut lb	34
Aconite, pressed. lb	32	Marshmallow, powd lb	35

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Musk	lb	30	Glauber	lb	1 1/2-4
Orris, Florentine	lb	25	Nitre	lb	10-12
Orris, Florentine, Fingers.....	lb	1 25	Nitre, granulated.	lb	10-12
Orris, Florentine, granulated.....	lb	35	Nitre, powd.	lb	10-12
Orris, Florentine, powd.....	lb	30	Prunelle	lb	45
Pareira Brava, pressed	lb	34	Rochelle. . .	lb	28-30
Pink. . .	lb	85	Soda. . .	lb	3-5
Pink, powd.	lb	90	Tartar. . .	lb	15
Pleurisy, pressed	lb	25	SALICINE	oz	37
Poke, pressed	lb	25	.....	lb	4 60
Poke, powd	lb	20	SALIPYRINE	oz	1 00
Pond Lily, white, pressed	lb	40	SALOL, Mallinckrodt's.....	oz	15
Pond Lily, white, powd	lb	40	Salol, Mallinckrodt's, cartons	lb	1 17
Pond Lily, yellow, pressed	lb	30	SALOPHEN	oz	1 00
Pond Lily, yellow, powd	lb	35	SANTONIN, bulk, M.C.W.	lb	14 09
Rhatany	lb	30	Cryst.	oz	99
Rhatany, powd	lb	35	1-oz vials, M.C.W.	oz	99
Rhubarb, East India	lb	75	SEED, Angelica	lb	25
Rhubarb, East India, powd	lb	75	Anise, Italian	lb	20
Rhubarb, cut in cubes, No. 1.....	lb	1 25	Anise, Italian, powd.....	lb	25
Rhubarb, cut in cubes, No. 2.....	lb	1 00	Anise, Star	lb	45
Rhubarb, cut in fingers, No. 1.....	lb	1 50	Bird, mixed, bulk.	lb	8
Rhubarb, cut in fingers, No. 2.....	lb	1 25	Bird, mixed, boxes.....	doz	1 00
Salep, powd	lb	1 00	Bird, mixed, cases, 30 pks.....		2 25
Sarsaparilla, American	lb	35	Burdock	lb	25
Sarsaparilla, American, powd	lb	35	Canary	lb	9-10
Sarsaparilla, Honduras	lb	70	Caraway, Dutch.	lb	15
Sarsaparilla, Honduras, ground	lb	70	Caraway, powd.	lb	17
Sarsaparilla, Honduras, powd	lb	70	Cardamon, Malabar.	lb	1 00
Sarsaparilla, Mexican	lb	20	Cardamon, Mangalor, bleached.....	lb	1 25
Sarsaparilla, Mexican, ground	lb	25	Cardamon, powd.	lb	1 00
Sarsaparilla, Mexican, powd	lb	25	Celery	lb	25
Senega, pressed	lb	75	Colchicum. . .	lb	50
Senega, powd.	lb	80	Colchicum, powd.	lb	55
Silkweed, pressed	lb	28	Conium	lb	25
Skunk Cabbage, pressed	lb	30	Coriander, German.	lb	14
Skunk Cabbage, powd	lb	35	Coriander, German, powd	lb	20
Snake, Canada, pressed.....	lb	65	Cumin	lb	18-20
Snake, Virginia	lb	65	Dill	lb	25
Snake, Virginia, powd	lb	70	Fennel. . .	lb	18
Spikenard, pressed	lb	72	Fennel, powd.	lb	20
Spikenard, powd	lb	30	Flax, recleaned.	lb	5 1/2-6
Squills, white, sliced.	lb	20	Flax, ground.	lb	5 1/2-6
Squills, powd	lb	60	Flax Oil Cake	lb	2 1/2-3 1/2
Stillingia, pressed	lb	25	Foenugreek, powd	lb	12
Stillingia, powd	lb	30	Hemp, recleaned	lb	6 1/2-8
Stone, pressed	lb	25	Henbane	lb	35
Sweet Flag, pressed	lb	25	Larkspur. . .	lb	55
Turkey Corn	lb	28	Lobelia.....	lb	60
Unicorn, true, pressed	lb	35	Lobelia, powd.	lb	65
Unicorn, true, powd	lb	40	Millet, American.	lb	6-8
Unicorn, false, pressed.....	lb	40	Mustard, black, Trieste	lb	10-12
Unicorn, false, powd	lb	45	Mustard, white	lb	10-10
Valerian, English, bulk.....	lb	35	Poppy Blue	lb	16
Valerian, English, powd	lb	35	Pumpkin	lb	22
Valerian, German	lb	30	Rape, California.	lb	6-8
Valerian, German, powd	lb	30	Sabadilla	lb	35
Yellow Dock	lb	25	Sabadilla, powd	lb	30-35
Yellow Dock, ground	lb	30	Stavesacre	lb	40
Yellow Dock, powd	lb	30	Stavesacre, powd	lb	45
Zedoary	lb	30	Stramonium	lb	25
ROSIN, No. 1.	lb	6-8	Stramonium, powd	lb	30
Barrel. . .		7 75	Sunflower	lb	15
ROUGE, Jewelers'	lb	50	Watermelon	lb	25
SACCHARIN	tin	35	Worm, American	lb	25
SAFFRON, American	lb	60	Worm, American, powd	lb	25
Spanish. . .	oz	80	Worm, Levant	lb	35
Spanish	lb	10 50	Worm, Levant, powd	lb	40
SAL, Acetosella	lb	30	SEIDLITZ MIXTURE	lb	28-30
Epsom	lb	2 1/2-5	SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19
			Chloride, 1-oz vials, M. C. W.....	oz	84

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Cyanide, 1-oz vials, M. C. W.....oz	1 04	Sulphite, crystals lb	10
Iodide, 1-oz vials, M. C. W.....oz	1 04	Sulphite, granulated lb	18
Lactate oz	1 04	Sulphite, dry lb	22
Nitrate, cryst., 1-oz vials, M.C.W.....oz	56	Tartrate lb	64
Nitrate, cones, 1-oz vials.....oz	69	SOLUTIONS, Donovan's lb	34
Nitrate, fused (Lunar caustic), 1-oz vials, M. C. W.....oz	59	Fowler's lb	30
Nitrate, cryst., 1-oz vials, P. W. R.....oz	54	Goulard's lb	35
Nitrate, cryst., 1-lb vials, P. W. R.....lb	8 50	Nitrate, Iron lb	50
Nitrate fused, No. 2, 1-oz vials.....lb	46	Mercury, Nitrate oz	20
SNUFF, Garrett's, 1-oz tins.....doz	60	Moncel's lb	50
Garrett's, 1 2/3-oz tins. doz	1 10	Tin, Chloride lb	35
Garrett's, 3 1/3-oz tins.....doz	1 75	SOMATOSE, Biscuit, 8-oz boxes.....doz	4 00
Garrett's, 6-oz bots.....doz	3 25	Somatose, Ferro, 2-oz tins.....doz	10 50
Maccaboy, 3 1/3-oz bots.....doz	2 00	Somatose, 2-oz tins.....doz	8 25
Rappee lb	65	Somatose, 1 1/4-lb tins.....lb	5 25
Rappee, 3 1/3-oz bots.....doz	2 00	Somatose, 1 1/2-lb tins.....lb	5 00
Scotch, Lorillard's lb	65	SOZOIODOL, Mercury oz	1 15
Scotch, Lorillard's doz	2 00	Potassium oz	75
Scotch, Garrett's Bladders.....lb	55	Sodium oz	80
SOAP, Castile, Conti's, white, box 14c less..lb	17	Zinc oz	1 10
Castile, mottled, box 8 1/2c; less.....lb	12	SPARTEINE, Sulphate, 1/8s.....oz	83
Castile, powdered, white.....lb	35	Sulphate, 15-gr. vials.....ea	12
Green, German lb	25	SPERMACETI, in cakes.....lb	42-45
Opodeldoc lb	65	SPIRIT, Ammonia lb	75
SODA, Ash. lb	2 1/2-5	Ammonia, aromatic. lb	85
Caustic, Sticks lb	34	Camphor lb	75
Caustic, com., drums.....lb	3-4	Chloroform, U. S. P.....lb	75
Caustic, com., 10-lb drums.....lb	6 1/2-7 1/2	Lavender lb	60
Caustic, purified, fused.....lb	40	Nitre, U. S. P., 1-lb bots.....lb	65
Sal (carbonate) bbls., 1 1/4c.....lb	3	Nitre, U. S. P., 4-lb bots.....lb	58
Soda Silicate, dry lb	35	Nutmeg. lb	75
Soda Silicate, liquid.....lb	15-25	Pimento. lb	65
SODIUM, 1-oz vials, M. C. W.....oz	25	Rosemary. lb	65
Acetate, M. C. W., carton.....lb	17	STEARIN lb	20
Arsenate, 1-oz vials.....oz	9	STONE, Pumice, select.....lb	10
Arsenite, 1-oz vials, M. C. W.....oz	10	Pumice, select, powd.....lb	8-10
Benzoate, 1-oz vials, M. C. W.....oz	11	Rotten lb	12-15
Benzoate, 1-lb bots. lb	56	Rotten, powd lb	10
Benzoate, true fr. Gum Benzoin.....oz	29	Soap, cut lb	18
Bicarbonate, C. P., powd., M. C. W.....lb	15	Soap, powd lb	8
Bicarbonate, kegs, 3c.....lb	4-5	STRONTIUM, Bromide, cryst., M. C. W..oz	11
Bisulphite, dry, pure lb	27	Carbonate, M. C. W.....lb	34
Borate, neutral oz	19	Hypophosphite, M. C. W.....oz	29
Bromide, M. C. W. lb	35	Iodide, 1-oz vial, M. C. W.....oz	30
Cacodylate oz	84	Lactate oz	16
Carbonate, pure cryst., 1-lb car., M. C. W..lb	11	Muriate, M. C. W.....lb	32
Carbonate, pure gran., 1-lb car., M. C. W..lb	11	Nitrate, pure, dried lb	59
Carbonate, dried, C. P., 1-lb car.....lb	27	Salicylate, M. C. W.....lb	83
Cinnamate oz	59	Sulphate, M. C. W.....lb	69
Citrate, M. C. W.....lb	74	STYPTICIN oz	6 50
Glycerophosphate, 75% oz	24	STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.oz	1 75
Glycocholate. oz	1 04	Arsenate, 1/8-oz vials, M. C. W.....oz	1 75
Hypophosphite, purified lb	1 14	Bromide, 1/8-oz vials, M. C. W.....oz	1 75
Hypophosphite, 1-oz vials oz	15	Citrate, 1/8-oz vials, M. C. W.....oz	1 75
Hyposulphite, 112-lb kegs. lb	3	Crystals, 1/8-oz vials, M. C. W.....oz	1 15
Hyposulphite, less lb	5	Hypophosphite, 1/8-oz vials, M. C. W.....oz	2 00
Iodide, 1-oz vials, M. C. W.....oz	31	Muriate, 1/8-oz vials, M. C. W.....oz	1 75
Iodide, M. C. W.....lb	3 53	Nitrate, 1/8-oz vials, M. C. W.....oz	1 75
Nitrate, cryst., C. P.....lb	29	Phosphate, 1/8-oz vials, M. C. W.....oz	1 80
Nitrate, gran., pure, 1-lb cartons.....lb	18	Sulphate, 1/8-oz vials, M. C. W.....oz	1 45
Phosphate, pure, recryst., bulk.....lb	12	Sulphate, 1-oz vials, M. C. W.....oz	1 25
Phosphate, gran., pure, M. C. W.....lb	13	Sulphate, 1-oz vials, P. W. R.....oz	1 25
Phosphate, dried, powd.....lb	24	Crystals, 1-oz vials oz	95
Salicylate, 1-lb box, P. W. R.....lb	50	Crystals, in bulk oz	90
Santoninate oz	89	Powdered, in bulk oz	85
Succinate oz	64	Powdered, 1/8-oz vials oz	1 10
Sulphate, Glauber Salts.....lb	3-5	Powdered, 1-oz vials oz	90
Sulphate, Glauber Salts, bbl.....lb	1 1/2	STYRAX, liquid, ...lb	60
Sulphate, dried lb	18-20	SUGAR, burnt lb	25
		Grape. lb	25

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Milk, crystals	lb	30	Metallic, feathered	lb	1 00
Milk, powd., bulk.....	lb	23	Muriate, solution	lb	35
Milk, powd., M.C.W., 1-lb cartons.....	lb	25	Oxide, white, pure	lb	99
SULFONAL, 1-oz vials.....	oz	1 35	TINCTURE, Aconite Leaves.....	lb	65
SULPHON-ETHYL-METHANE	oz	60	Aconite Root	lb	75
SULPHON-METHANE	oz	50	Aconite Root, Fleming's.....	lb	90
SULPHUR, California, ground, 110-lb bags.....	lb	2	Aloes	lb	65
Flowers	lb	5	Aloes and Myrrh.....	lb	65
Flowers, in bags.....	lb	2 3/4-3	Arnica	lb	65
Iodide	oz	38	Asafoetida	lb	65
Lac., precip.....	lb	18	Belladonna	lb	65
Roll, bbl.....	lb	2 3/4-5	Benzoin	lb	75
Sicily, ground.	lb	5	Benzoin, comp.....	lb	75
Strips	lb	15	Blood Root	lb	65
Washed	lb	15	Buchu	lb	65
SUMAC.	lb	10	Cantharides	lb	75
SYRUP, Ginger, U. S. P.....	lb	65	Capsicum	lb	65
Hydriodic Acid	lb	70	Cardamom	lb	75
Iron Iodide	lb	65	Cardamom, comp.....	lb	75
Ipecac	lb	60	Catechu, comp.....	lb	75
Lactucarium	lb	1 00	Cinchona, comp.....	lb	75
Orange Peel	lb	65	Cinnamon	lb	65
Rhubarb	lb	60	Colchicum Root	lb	75
Rhubarb, Aromatic	lb	65	Colchicum Seed	lb	75
Rhubarb and Potash.....	lb	65	Columbo	lb	60
Sarsaparilla	lb	65	Conium	lb	65
Sarsaparilla, comp.....	lb	65	Cubebs	lb	65
Senna	lb	65	Digitalis	lb	65
Senega, U. S. P.....	lb	65	Ergot	lb	75
Simple	lb	35	Ergot, ethereal	lb	80
Squill	lb	60	Galls	lb	60
Squill, comp.....	lb	60	Gelsemium	lb	75
Stillingia, comp.....	lb	60	Gentian	lb	60
Tolu	lb	60	Gentian, comp.....	lb	65
Wild Cherry	lb	60	Ginger	lb	65
Yerba Santa comp.....	lb	65	Guaiac	lb	75
TALCUM, powdered	lb	6-8	Guaiac, ammoniated	lb	75
Purified	lb	20-25	Guaiac, Dewees'	lb	75
TAMARINDS, pound bottles.....	lb	25	Hyoscyamus	lb	65
Keg	ea	4 50	Iodine.	lb	1 40
Pulp	lb	50	Iodine, colorless.	lb	1 40
TANNALBIN.	oz	85	Iodine, comp.	lb	1 40
TANNIN, 1-lb cartons, incl.....	lb	85-90	Iodine, Churchill's.	lb	1 75
1-oz cartons, incl.....	oz	12	Ipecac	lb	80
TANNIGEN	oz	75	Iron Acetate	lb	65
TANNOFORM	oz	22	Iron Chloride	lb	50
TANNOPINE	oz	75	Iron Citro-Chloride	lb	65
Veterinary	oz	25	Jalap	lb	65
TAR, Barbadoes	lb	25	Kino	lb	75
Coal	gal	25	Lobelia	lb	60
Pine, bulk	gal	40	Lobelia, ethereal	lb	65
Pine, 1/2-lb cans.....	doz	75	Myrrh	lb	75
Pine, 1-lb cans.....	doz	90	Myrrh and Capsicum.....	lb	75
Pine, 2-lb cans.....	doz	1 50	Nux Vomica	lb	65
Pine, gal cans.....	doz	6 00	Opium	lb	1 25
TARTAR EMETIC, M. C. W.....	lb	50	Opium, camphorated	lb	60
TEREBENE, 1-lb bottles.	lb	79	Opium, deodorized	lb	1 30
.....oz	oz	14	Orange Peel	lb	65
TERPIN HYDRATE, cryst.	oz	9	Quassia	lb	60
Pounds	lb	55	Rhatany	lb	60
TERPINOL, Liquid	oz	47	Red Saunders	lb	65
THEOBROMINE, Alkaloid	oz	90	Rhubarb	lb	65
And Sodium Salicylate	oz	60	Rhubarb, Aqueous	lb	60
THIOL, dry	oz	1 00	Rhubarb, Aromatic	lb	70
Liquid.	oz	40	Rhubarb, comp.....	lb	65
THYMOL, 1-oz vials	oz	27	Rhubarb, Sweet	lb	65
Pounds	lb	3 10	Rhubarb and Aloes.....	lb	65
THYROIDIN	oz	1 30	Rhubarb and Senna.....	lb	65
TIN, Chloride	lb	53	Senna	lb	65
			Senna, comp.....	lb	65

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Serpentaria	lb	65	Guaiac, rasped	lb	10
Stramonium Leaves	lb	65	Hypernic.	lb	8-10
Stramonium Seed	lb	65	Logwood, chip.	lb	8-10
Strophanthus	lb	1 25	Logwood, ground.	lb	8-10
Tolu	lb	75	Nic.	lb	8-10
Valerian	lb	65	Quassia, chip.	lb	15
Valerian, ammoniated	lb	85	Quassia, ground.	lb	18
Veratrum Viride	lb	65	Quassia, powdered.	lb	18
Warburg's	lb	1 75	Red Sanders, ground.	lb	12
TRIKRESOL, S. & G.	lb	60	Red, cut.	lb	10
TRIMETHYLAMINE	oz	55	XANTHOXYLIN, Keith's	oz	1 13
TRIONAL	oz	1 50	XYLOL	lb	70
TRIPOLI, bulk	lb	8-12	ZINC, Acetate, 1-lb bottles, M. C. W.	lb	43
TURPENTINE	gal	90	Benzoate	oz	24
In case	gal	85	Benzoate, 1-oz vials, M. C. W.	oz	24
Chian	oz	45	Carbolate, 1-oz vials, M. C. W.	oz	24
Venice	lb	35	Carbonate, precipitate, 1-lb cartons.	lb	25
URANIUM, Acetate, 1-oz vials	oz	59	Chloride, fused, 1-oz vials	oz	13
Chloride, 1-oz vials	oz	47	Chloride, granulated	lb	33
Nitrate, 1-oz vials	oz	45	Cyanide, 1-oz vials, M. C. W.	oz	21
Sulphate, 1-oz vials	oz	47	Hypophosphite, 1-oz vials	oz	29
UROTOPIN	oz	60	Iodide, 1-oz vials, M. C. W.	oz	37
Tablets, 20 in box.	box	25	Metallic, pure, feathered.	lb	27
UNGUENTUM CREDE, ½-oz jars.	oz	90	Oxide, English, Hubbuck's.	lb	50
URETHANE	oz	54	Oxide, pure, M.C.W.	lb	30
VANILLIN, 1-oz vials.	oz	75	Permanganate	oz	52
VERATRINE, pure, ⅛-oz vials.	oz	2 40	Phosphate, M. C. W.	oz	10
VERONAL, powd.	oz	1 60	Phosphide	oz	23
Tablets, 10c.	ea	30	Sulphate, cryst.	lb	8-10
Tablets, 100s	ea	2 25	Sulphate, cryst., chemically pure.	lb	18
VERDIGRIS	lb	40	Sulphide, 1-oz vials, M. C. W.	oz	16
Powdered	lb	45	Sulphocarbolate, M. C. W.	lb	59
WATER, Cherry, Laurel.	pt	50	Sulphocarbolate, 1-oz vials, M. C. W.	oz	11
Chlorine	lb	40	Sulphate, H. P.	lb	15
Distilled.	gal	8	Sulphate, dried, H. P.	lb	25
Elder Flower	lb	50	Sulphocarbolate	oz	11
Orange Flower, triple.	lb	35	MINERAL WATERS.		
Orange Flower	gal	2 00			
Orange Flower, Chiris, small.	doz	2 00	Case Dozen		
Orange Flower, Chiris, large.	doz	3 75	Apenta Bitter Water, 50 bots in case.	\$10 00	\$2 65
Rose, triple	lb	40	Apollinaris, 50 qt bots in case.	8 50	2 25
Rose	gal	2 00	Apollinaris, pints.	12 00	1 60
Rose, Chiris, 6¾-gal coppers.	gal	1 75	Buffalo Lithia, 12 ½-gal. bots in case. ..	6 00	....
Rose, Chiris, small.	doz	2 00	Bartlett, 50 qt. bots. in case.	8 00	2 25
Rose, Chiris, large.	doz	4 00	Bethesda, 50 qt. bots. in case.	7 50	2 25
WAX, Bayberry	lb	45	Bethesda, 12 ½-gal. bots. in case.	5 50	....
Bees, yellow, refined.	lb	37-40	Bythinia Water	10 00	2 50
Bees, yellow, oz.	lb	45	Carlsbad, Sprudel, 30 qt. bots. in case. ..	11 00	4 50
Bees, white, extra.	lb	60	Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Bees, white, No. 1.	lb	55	Congress (Saratoga), 48 bots. in case. ..	8 00	2 50
Bowdlear's 1-lb cartons	doz	4 20	Franz Joseph, 50 bots. in case.	11 00	3 00
Fruit, can, red.	lb	8	Garrod Spa Lithia, pints.	6 00	2 00
Fruit, can, white	lb	8	Garrod Spa, Lithia, ½-gal. ....	....	5 00
Japan	lb	18-20	Hathorn, 48 pt. bots. in case.	8 00	2 50
WAX, FLOOR	lb	25-38	Hunyadi Janos (in case), 50 qt. bots. ..	11 00	3 00
Johnson's, 1-lb cartons.	doz	4 00	Hunyadi Matyas, 50 qt. bots. in case. ..	9 00	2 50
Johnson's, ½-lb cartons.	doz	2 25	Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Johnson's, ¼-lb cartons.	doz	1 40	Londonderry Lithia, ½ gallons.	9 50	6 50
WHITING, Gilders'	lb	3	Londonderry Lithia, 100 pints.	13 50	1 75
Spanish	lb	2½	Poland, qts., 50 to case.	9 00	2 50
WINE, Antimony	lb	65	Rackoczy Kissengen .....	....	5 00
Aromatic	lb	65	Red Raven Splits.	5 00	1 35
Colchicum Root	lb	75	Rubinat Condal, 50 pt. bots. in case. ..	14 00	3 75
Colchicum Seed	lb	65	Veronica .....	....	5 50
Ergot	lb	1 25	Vichy Water Celestine	10 25	3 00
Ipecac	lb	1 25	Risk of breakage is assumed by buyer.		
WOOD, Brazil, ground.	lb	10	Villacabras Water, qts., 50 bots. in case	17 50	4 50
Camwood	lb	10	Witter, 36 bots in case.	12 00	4 50
Fustic, cut	lb	3½-5	White Rock Splits.	9 90	1 20
Fustic, ground	lb	6	White Rock, pints	11 50	1 50
			White Rock, quarts.	8 85	2 25

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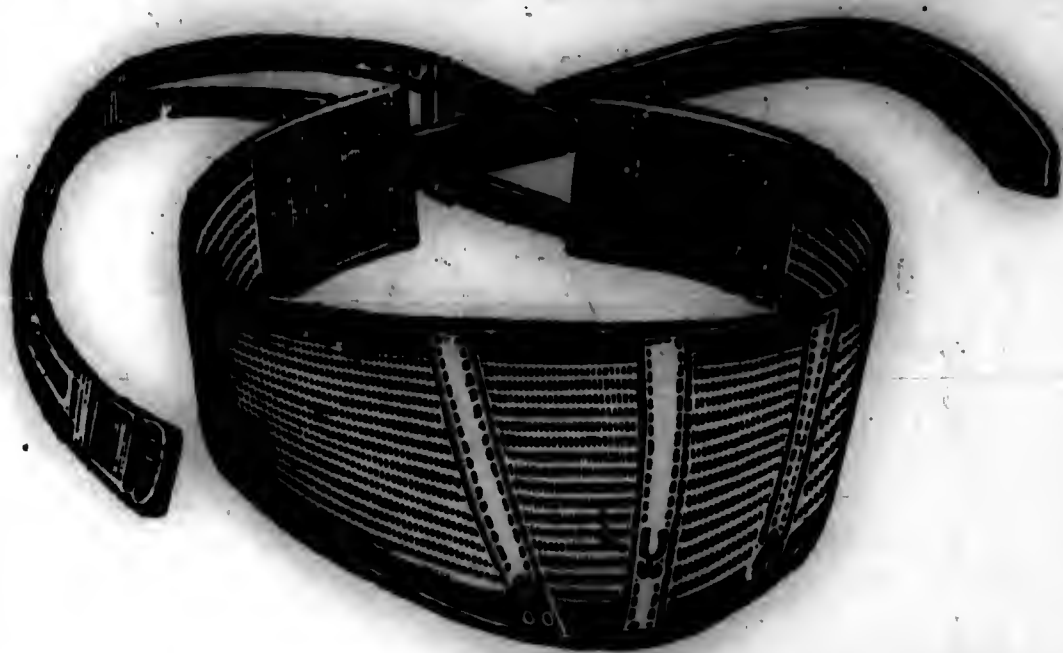
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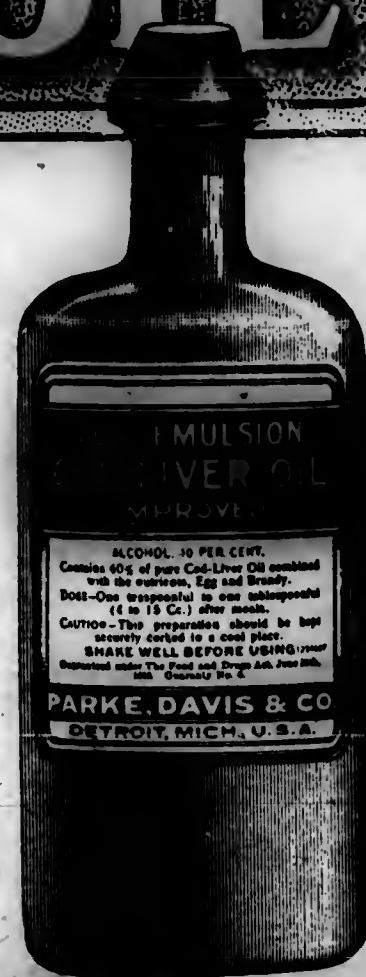
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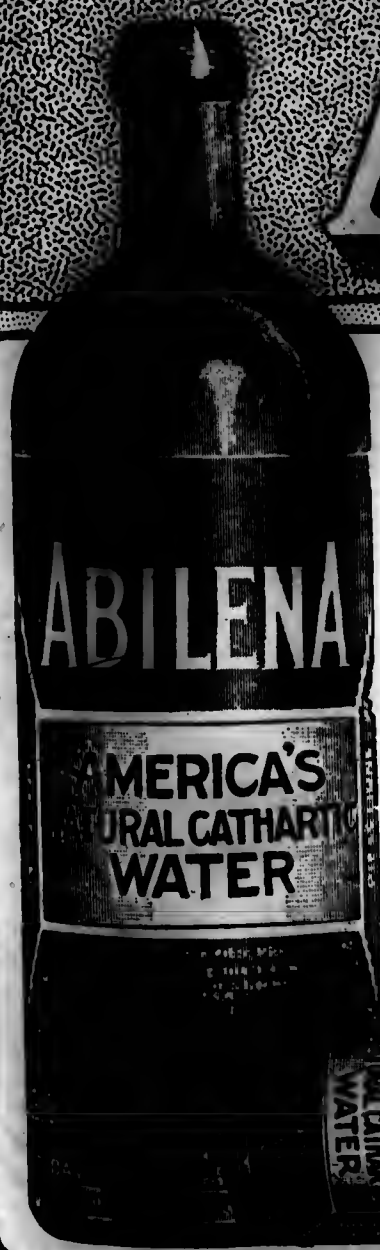
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MAR 30 1908

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THE PACIFIC PHARMACIST

VOL. 1

DECEMBER, 1907

No. 8

OFFICIAL ORGAN OF THE CALIFORNIA PHARMACEUTICAL ASSOCIATION



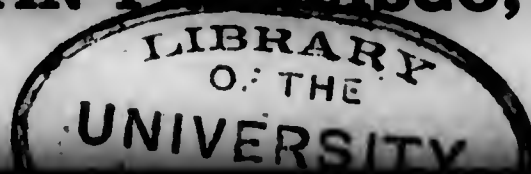
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Office of the Secretary
WASHINGTON

November 1, 1906.

*The Antikamnia Chemical Company,
St. Louis, Mo.*

Gentlemen:—

Your guarantee as to the character of the materials manufactured and sold by you, given in accordance with Circular 21 of this office, has been received, found to be in proper form and is regularly filed. The serial number attached thereto is No. 10.

*Respectfully,
W. M. HAYS, Act. Sec'y.*

All Antikamnia Preparations are sold under this guaranty and our Serial No. 10 appears on every package sold under the new law, thus assuring the retail drug trade of the absolute reliability of these pharmaceuticals.

The Antikamnia Chemical Co., St. Louis, Mo., U.S.A.

What would you say

if the people in your town sent their prescriptions East to have them filled, saying that you couldn't fill them as well as the man in the East?

Wouldn't you appreciate it if they gave you an opportunity to show them that you could do the work just as well or better than it was being done for them?

That is what we ask you to do toward us. Let us demonstrate that our goods are right, as are also our business methods.

A square deal and a good word for the "Cutter Products" will be appreciated.

DIPHTHERIA ANTITOXIN	
STREPTOCIDIC SERUM	VACCINE VIRUS
ANTHRAX VACCINE	BLACKLEG VACCINE
TUBERCULIN	MALLEIN

The Cutter Laboratory

Berkeley, California

Operating under U. S. Government License No. 8

Fellows' Syrup

Important Notice

This is to remind you that most sales of FELLOWS' SYRUP OF HYPOPHOSPHITES are made on physicians' prescriptions, in which case the profit to the retail druggist is nearly 100 per cent.

This means that the physician sends you a desirable customer; and the least you can do is to treat him fairly, and supply the preparation prescribed—Fellows' Syrup.

Members of the retail drug trade are warned against buying or selling colorable imitations of the well-known yellow-wrapped package of Fellows' Syrup. The highest courts have decided that such an act is an infringement of the Trade-mark Law, and makes the offender liable to a suit for damages.

"All-the-Year-Round Profits" with Diamond Dyes

Every spring and fall, each woman's magazine contains a series of color pages of Diamond Dye advertising. And every month in the year, as well, Diamond Dyes are represented by educational advertisements in their columns.

The result is a demand that has no parallel in the history of proprietary articles.

It is a demand that **never lets up**. As many packages of Diamond Dyes are sold in December as in May. Is there another similar article on your shelves of which this can be said?

With the receipt of your first consignment of Diamond Dyes your "all-the-year-round profits begin."

Recommend Diamond Dyes to Your Customers. They Will Thank You for It

WELLS & RICHARDSON CO., - - BURLINGTON, VERMONT

THE Pacific Pharmacist

Official Organ of the California Pharmaceutical Association

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

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Address all communications and make all checks and money orders payable to THE PACIFIC PHARMACIST.

Communications on questions pertaining to Pharmacy and the Drug Business are solicited. The name of the writer should accompany every article, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

**PLEASE NOTIFY THIS OFFICE IF YOU DO
NOT RECEIVE THE JOURNAL REGULARLY**

Editorial Notes

Drug Houses Succumb We note with regret that two prominent firms in the drug business have been caught by the financial stringency. The Caswell-Massey Company and the Wm. S. Merrell Chemical Company have both been placed in the hands of receivers. It is stated that the former company's numerous and beautiful stores in New York City have been operated at a loss for some time. The principal owner was George C. Lyon, of Providence, Rhode Island, where he was treasurer and one of the leading stockholders in the Hall & Lyon Co., who operated four stores in Providence, and also stores in Wal-

tham and Worcester, Mass., and one each in Woonsocket and Newport, R. I. Mr. Lyon is now seriously ill, and his recovery is doubtful. The Hall & Lyon Company had no connection with the Caswell-Massey Co., which was a private investment of Mr. Lyons.

The Wm. S. Merrell Chemical Company has been in business between 40 and 50 years in Cincinnati as manufacturers of chemicals and pharmaceutical specialties. The firm's capital stock is over \$500,000, and it is confidently expected that they will be able to meet all their obligations and continue business. They carry a heavy stock, and do a large business, employing about

150 hands. Inability to secure ready money to meet immediate needs compelled them to seek relief from the court. We sincerely hope they will soon adjust all their difficulties.

The Financial Condition The following is believed to be a fairly correct statement of the present financial situation.

Owing to the unusually good outlook and business prosperity there has been much speculation. This has taken money out of banks, thus hampering these institutions in carrying on their legitimate business. Much of the speculation has been of the "wild cat" variety, resulting in losses to legitimate enterprises, the money having been used for speculative purposes. The stringency due to these causes created doubt in the minds of business men having money on deposit, and many drew out large sums, fearing a possible closing of the banks, and placed this money in private safe deposit vaults, where they could have access to it whenever desired. This still further increased the money stringency, and as a result some banks were compelled to temporarily suspend, until more money could be secured with which to carry on business. The indications are that the worst is over, though a stringency will continue for some time. The banks are tiding over this danger period by letting the money out in small sums, as required to meet absolute necessities, and the Governor has been assisting by declaring legal holidays. The receipt of money that had been owing to this country has greatly improved the situation.

Business Sound Business never was sounder, prospects never were better. We need less speculation and more confidence. Leave the money in the banks. It is

safer there, and is a more remunerative investment than reckless speculation. We do not anticipate any considerable trouble. The present money stringency will, no doubt, be corrected within a comparatively short time.

Who Got Scared? Most money panics occur when depositors become afraid of the banks. In the

present case, the position has been reversed. The banks were afraid of their depositors. Before there was any run on the banks, they began to pay out Clearing-house certificates instead of legal tender. The people good naturedly and very wisely accepted the temporary expedient, and a general distrust of banks was averted. It is stated that there never was as much money in the banks as now, and, so far as National Banks are concerned, the reports called for by the Comptroller of the Currency seem to substantiate the statement. As was to be expected, a few banks, whose condition was unsound, or for the time being critical, have had to suspend, but the aggregate of those is very small in proportion to the whole.

Parcels Post Do you want the Parcels Post? If you do, you need not trouble yourself, for it is likely to come anyway. The mail-order houses and many other large corporations want it, and are moving heaven and earth and Congress besides to get it. If you don't want it, it is time for you to get busy. Interview your Congressman and Senators, personally, if possible, if not, by letter, and let them know how you feel about it. Tell them how it is going to affect you, and get them to vote against it.

How It Will Affect You But perhaps you don't know how it will affect you — haven't thought much about it. If that is so, you had better begin to

think. Letting things drift because it is too much bother to think them out beforehand, keeps some people poor all their lives and makes others bankrupt. This is a good time to think—and act.

**What It Is
Proposed
To Do**

Postmaster - General Meyer proposes, with the consent of Congress, to permit the Postoffice to carry packages of merchandise weighing eleven pounds, as against the present limit of four pounds, and to reduce the postage from 16 cents a pound to 12 cents. The charge for carrying a package not to exceed eleven pounds will be 25 cents, if for a person living where there is a rural free delivery; if for a person in a city or town, it will be \$1.32. The discrimination in favor of the rural delivery is planned by the Postmaster-General to appease the opposition of storekeepers in small towns, whose business would be seriously injured by a uniform rate of 12 cents a pound for such packages. But even at the higher rate here named, the business of city druggists would suffer, because the mail-order houses sell everything a druggist sells, and the latter would be confronted with a worse cut-rate evil than he has ever had to contend with, especially on the less bulky and weighty articles. San Jose, Stockton and San Francisco druggists would be in competition with Chicago and New York in almost all toilet articles, as well as domestic remedies.

**Does Progress
Demand the
Parcels Post?**

Some people tell us the Parcels Post has been successful in England and some other progressive countries; that it is needed by the people, and that to oppose it is a sign of old-fogyism, and futile anyway. If all this is so, the

traders with limited capital will soon have to surrender. "The small dealer must go" will be the slogan of the "progressives." We do not believe in any such doctrine. The tendency to the centralization of business in the large cities is too great already, and does not need to be fostered by Government aid. Still less is it desirable to build up immense department houses to monopolize the larger part of the trade of the country by practically bringing these firms close to every farmhouse and every artisan's home.

**What Are You
Going to Do
About It?**

See what the retail druggists of Macoupin County, Ill., have done, as quoted elsewhere in this issue, and make a similar representation to your representatives in both houses of Congress, and do it soon.

THE GOLDEN RULE

The ethics of pharmacy have their foundation in fair and square dealing. It would seem as if it should be easy to determine just what was fair and what was unfair in the business relations of pharmacists and manufacturers, but such is not always the case, and sometimes the pharmacist has to hesitate before he knows just what course he should pursue, even when he is influenced by the desire to do right rather than by self-interest. In our last issue we took exception to some advertising that unjustly branded all druggists as substitutors. While we will defend to the utmost of our ability honest, "fair and square" druggists, we will make no defense or excuse of those who are substituting, because, in our view of it, they are not dealing fairly with the firm whose goods are being substituted. Let us look at this question from two or three standpoints.

The Manufacturing Pharmacist

The manufacturing pharmacist has come to stay. He is a useful man to both pharmacist and physician. He is able to do things which only a few retailers can do as well, and many retailers cannot do at all. Operating upon much larger quantities and under conditions that are almost ideal, he can turn out good products, standard in quality as well as uniform in appearance and other physical characters. The cost to him of assaying crude drugs and finished products is nominal, whereas to the average retailer it is large, when the time is considered and the small amount of material which has to be charged with the cost of such assays. The manufacturing pharmacist makes many things by the most approved machinery, obtaining more elegantly finished goods, usually with more exactness and at much less cost than they can be made by hand. He effects economies in labor by systematizing the work and avoiding the employing of hundred-dollar-a-month hands on a twenty-dollar-a-month job. His large volume of business justifies him in engaging experts to do analytical, microscopical and experimental work, who earn many times their salaries by the saving they effect in improvements of processes, utilization of by-products and in other ways. With the best machinery, with steam and electric power, skilled scientists, trained workmen and able managers to operate the whole, the manufacturers of pharmaceuticals will always be able to produce many preparations better and more cheaply than the retailer.

This is only in keeping with the general trend of the times. We no longer call upon our mothers to knit our socks or our sisters to make our linen shirts. Candles are used only in exceptional

cases, and we do not have our water brought to us in buckets and barrels. We do not make our own calomel, corrosive sublimate, or white precipitate, our chloroform, ether, or absorbent cotton. The time is gone by when the pharmacist has to make these things. The manufacturer can make them better and at less cost. So with some pharmaceuticals. The wise pharmacist will get the best and most inviting goods, even though he could make them, if need be. So the manufacturing pharmacist is here to stay.

Copyrighted Specialties

But there are some firms that manufacture only one article, or one line of goods, or perhaps two or three, not official, but proprietary, the owners' rights being protected by trade mark or copyright. Such preparations, chemicals and pharmaceuticals are very numerous, and cumber the shelves of druggists, costing much more than is warranted by the profit he can make out of them. The doctors are sampled again and again, supplied with loads of "literature" setting forth the claims of these articles upon their consideration and the druggist is ignored, except that sometimes the detail-man calls to tell him to stock up on "Rheumatin," or whatever it may be, because the physicians will be prescribing it right away. Where is the GOLDEN RULE now? The druggist is victimized and can only submit, for the proprietor is usually quite indifferent to his interests.

However unfair this condition is to the pharmacist, we have always contended that he should do right, whatever the other party does. He should supply what is called for. The writer has done this persistently during the fifty years in which he was proprietor of a drug store, not because it always

paid, but because it was right. The GOLDEN RULE called for such a course.

Creating Trade But there is another side to this question. In marketing proprietaries, whether ethical pharmaceuticals or "patent" medicines, the demand is created almost entirely by the proprietor. He spends time, money and business energy in exploiting the article, with physicians or the public, or both, as the case may be. In this way he makes a certain amount of trade for the pharmacist or retail druggist. Is it right, when he has brought business to the latter's store, for him to try to sell something else? What does the GOLDEN RULE say? The question of profit is not to be considered when the question of right and wrong comes in. The evils of cut-rates and unlimited competition have to be dealt with in other ways, not by substitution.

Substitution or Imitation—Which? In our view of this question, while substitution is bad, imitation is worse. The substitutor suggests or sells something in place of the article called for; it is not necessarily similar to the latter in appearance, style of package, etc.; it is only offered in place of the other; but the imitation article is not only put forward as possessing the same properties, but is dressed in like garb, sometimes the name, at other times the size and style of package, and at still other times the label, printed matter accompanying it, and general appearance, are made to resemble that which it imitates. In this way there is sometimes downright deception. The fact that the article is worth being imitated is an admission that it has merit; it is also an indication that the article by its

merit and by the enterprise of its proprietor, has obtained a sale sufficient to make it an object for some one to put an imitation on the market. This surely is stealing another man's property; for the reputation which his preparation enjoyed is his property. We have always thought that by introducing into the United States Pharmacopœia and National Formula formulas for imitations of well-known proprietaries was unfortunate, even though these preparations have received names that bear no resemblance to the originals. One of these preparations in particular is purposely colored to make it look like a trade-marked preparation. If the formula had been given without the color, it would have answered every purpose so far as physicians are concerned. The only object of introducing color must have been to imitate the advertised preparation. Is this fair?

A Square Deal These proprietors have their rights, among which is the right to profit by the trade which they have created. But while the GOLDEN RULE demands that they shall not be robbed by imitation or substitution of that to which they are justly entitled, the same rule requires that they should, as far as possible; protect the retailer from aggressive cutting, and so insure their friend a moderate profit for his investment and expense in marketing their goods. This can be done. It is only a question of expense and trouble. The retailer as well as the proprietor should have "a square deal."

As we said at the outset, the conscientious pharmacist does not always know just how to act, but if he practices the GOLDEN RULE, he will not go far wrong. There are many points in considering this subject that cannot be dealt with in a short article

of this nature, but it is well known that as far as grievances are concerned there are faults on both sides. We make a plea for conciliation. Mutual forbearance is better than a free fight. If the druggist will duly consider the rights of the proprietor, whether of an official pharmaceutical or of a "patent medicine," the sale of which is legitimate as a part of his business as a trader, and if the proprietor will duly consider the druggist and do his best to secure to him a fair profit for handling his goods, there will soon be but little friction. We know of no better ideal for both to try to live up to than this **"As ye would that men should do to you, do ye even so to them."** It is a good rule. It works both ways.

N. A. R. D. Some druggists think that the money they pay as dues to the N. A. R. D. and kindred organizations is lost. They could not make a greater mistake. The Association is a necessity to the retail druggist, and the cost of its maintenance is a just charge on his business. It is neither wise nor honorable to let some one else bear the burden that he should cheerfully bear. If everybody paid promptly, there would be no need to be under obligations to generous manufacturing firms for large donations.

Substitution The "Pharmaceutical Era" hits the nail on the head when it says:

"If a physician orders a specific make of goods it is the druggist's duty to use the goods specified, unless he has the physician's permission to use those of some other make. When no specific brand of a preparation is specified, then, of course, it is entirely up to the druggist to use such goods as he knows are satisfactory."

"In most prescriptions of this char-

acter specialties are usually specified, and not the standard U. S. P. and N. F. preparations. If the physician is convinced of the quality of goods that he prescribes, there can be no question about the duty of the pharmacist."

This has always been our view of this question, and we have lived up to it. We believe the best pharmacists everywhere do the same. Why is the practice not universal?

Considerate The California Club have requested their members and other ladies of the city to do their shopping early in the month, instead of leaving it until the week before Christmas. They have also asked all ladies to do their shopping before 6 p. m. out of consideration for the employes. Both requests should be heeded as far as possible. Purchasers will be better waited upon, salesmen (and saleswomen) will not be so hard worked, and everybody **ought to be better pleased.**

Ladies! Christmas cheer is not all eating and drinking. You can carry it with you in your pleasant faces and gracious manners as you go shopping. Drop a little in every store you visit, and everybody will inwardly wish you, as we do, a Merry Christmas.

Seasonable This request for consideration comes at the right time. Christmas is largely given to acts of thoughtfulness for others. It is less than formerly devoted to religious worship, but more than ever to deeds of kindness and good will. Why not let the shop-girls and salesmen have a taste of it before Christmas?

The Old Year and the New Nineteen hundred and seven leaves us with somewhat of a cloud hovering over the financial horizon from East to West. The Pacific

Coast has stood the pressure well. There is plenty of money and everybody knows it, but it is not moving. It is clutched tight in the banks, the banks fearing that, if it was sent abroad, somebody would kidnap it and demand a king's ransom for returning it. But they are getting over their scare, and are beginning to trust their depositors as their depositors trusted them.

Before our next issue, the new year will have come in. We shall have shouted, "The King is dead! long live the King!" glad that the strenuous old year with its hard lines has gone, and welcoming the new because it brings hopes of better things. We know that the Pacific Coast is all right, California is all right, San Francisco is all right. We have the best part of the world to live in. Let us make it still better. True, we have graft, and greed, and selfishness; we have monopolies, and trusts, and privileged corporations. But other large centers have the same, and we are now in a fair way to exterminate some of these and control others. There are better times in store when everybody shall do right. Let us set the pace.

Keeping Posted Important as it is that every merchant should have his accounts promptly posted, it is scarcely less important that he should keep himself "posted" as to what is going on, especially in the business world, that most nearly affects his own trade. Just so the pharmacist needs to keep himself well informed on all matters relating to his particular calling. He cannot do this if his reading is confined to hasty "clinical" references to a ten-year-old Dispensatory or a still older Chemistry. A few dollars spent every year in new books, the best of

each kind, is one of the best investments he can make. A few more dollars put into the best pharmaceutical journals, of which every store should have at least two, is an actual necessity, and should be charged to expense account as much as the outlay for "polishing up the handle of the big front door." Only by the diligent use of such helps can he keep himself bright and up-to-date. One of our most prominent physicians, who enjoyed a very lucrative practice, once told me that if he did not get four hours' reading every day he felt as if he had failed to discharge a duty. The pharmacist who will devote an average of one hour each day to this duty—for such it is—and follow it up with occasional experimentation in pharmaceutical lines, will find that he has thrown wide open the "big front door" of his store to many who would have passed it by had his rustiness kept it closed.

THE PARCELS POST

Postmaster-General Meyer thinks he has formulated a plan whereby the objections of retail merchants may be overcome and their trade protected from the encroachments of mail-order houses. The idea is to establish two distinct classes of patrons, who are to pay different rates for the service, making the charge much lower for what may be called local distribution, thereby preventing the mail-order houses from competing with country merchants on equal or superior terms as has been the fault of other plans, as viewed from the standpoint of the pharmacist and others affected in small communities. Mr. Meyer, in explaining his plan, says in part:

I propose to recommend the establishment of a parcels post in rural routes which will meet the objections of the small storekeepers and retailers. This will be a boon to our rural population and to the store-

keepers, as the latter can receive his orders by mail or telephone and dispatch the desired merchandise by the rural carrier. The farmer will be saved from hitching up his horse and losing the time he needs for planting or harvesting his crops, and it will enable the storekeeper to increase his sales and meet the requirements of modern trade.

If my recommendations are adopted it will cost 12 cents a pound for the mail-order houses to send parcels to the rural delivery patron from any city postoffice, while for delivery from the distributing office of the rural route, or if mailed by a patron of any rural route for delivery to a patron on the same route, or at the distributing office of said route, the charge will be but 5 cents for the first pound and 2 cents for each additional pound, up to eleven pounds, or 25 cents for a package weighing eleven pounds.

I am also considering the advisability of recommending a local parcel post delivery at city free delivery postoffices, but in order to install such a system it will be necessary to obtain from Congress a special appropriation to acquire wagons and automobiles to do the required hauling. The object of my recommendation to Congress will be to get an adjustment of rates and weights that will meet the rates and weights charged for parcels sent by post to other countries. This will mean a reduction in the rate from 16 to 12 cents per pound, and an increase in the weight limit from four to eleven pounds.—Pharm. Era.

President Roosevelt commends the subject to the consideration of Congress in his message in the following passage:

I further commend to the Congress consideration of the Postmaster-General's recommendation for an extension of the parcel post, especially on the rural routes. There are now 38,215 rural routes, serving nearly 15,000,000 people who do not have the advantages of the inhabitants of cities in obtaining their supplies. These recommendations have been drawn up to benefit the farmer and the country storekeeper; otherwise I should not favor them, for I believe that it is good policy for our government to do everything possible to aid the small town and the country district. It is desirable that the country merchant should not be crushed out.

For comments on this subject, see our editorial pages.

ILLINOIS DRUGGISTS ACT

The druggists of Macoupin County, Ill., recently sent the following address to the Postmaster-General, and copies of the same to the members of Congress from that district and to the Illinois Senators:

To the Postmaster-General, Washington, D. C.:

At a meeting of the Retail Druggists' Association of Macoupin County, Ill., held November 12, 1907, the following action was taken, which we present for your consideration:

In the parcels post, now being agitated in many parts of the country, and as recommended by you, we see a bitter foe to the merchant of the smaller towns, and we believe no greater injustice could be foisted upon a great majority of the American business men.

While we believe that your recommendations are intended to benefit the majority and not the minority, yet in these recommendations we believe we see an evil that would be difficult to correct should the recommendations become law.

Discrimination Wrong.

We do not believe that anything but an uniform postal rate should prevail in "this country of equal rights to all" and should these recommendations become law it would be but a matter of a short time until uniform rates would prevail and practically annihilate the country merchant in behalf of the great mail-order houses of our great cities. Therefore be it

Resolved, That we oppose the recommendations of Postmaster-General Meyer regarding the parcels post and that our president and secretary are hereby instructed to notify our honorable Senators, Congressmen and the Postmaster-General of our action, and ask their consideration of our suggestions.

Another View.

S. L. Hilton, Washington, D. C., Chairman of the N. A. R. D. Committee on National Legislation in 1905-06, has made a deep study of the parcels post question and opposes a reduction of the present rate. He writes:

Let us stop to consider what the proposed reduction in rate means to the mail-order houses all over the country. Take, for instance, their catalogues. Sears, Roebuck & Co. distribute one million of these books every year.

The difference which they would save will amount to 56 per cent, which would put into the pockets of this concern alone on this one article, their catalogue, \$180,000 annually.

Proposition Not New.

The measure as advocated by the Postmaster-General is practically identical with the Bristow measure, and the feature presented in the alleged interest of the local retail merchant is practically identical with the bill drafted by the late Assistant Postmaster-General Bristow more than three years ago, and which has been pending during the past two Congresses without receiving a commendatory word from any representative of legitimate retail interests.

On the other hand, the Bristow proposition has been vigorously denounced on the ground that it would afford an enormous advantage to the mail-order houses, which would be able to ship their catalogues in bulk by freight to agents at postoffice towns who would distribute them over the rural routes as local packages.

The present cost of sending a 4-lb. catalogue by mail is 32c. The cost for handling the same catalogue under the Bristow-Meyer rural parcels post plan would be 11c for postage, and perhaps 3c for freight and agent's commission, or 14c compared with the present cost

of 32c. In other words, the catalogue house would be enabled to save 56 per cent on one of the heaviest items of expense which they are now obliged to incur in working up new business and keeping in touch with old customers.

More Objectionable Than Bristow Plan.

But the rural parcels post as set forth by the Postmaster-General is far more objectionable than the Bristow plan in the only feature in which it differs from it, for the reason that it is combined with a weight limit of 11 lbs., while the Bristow plan proposed a 5-lb. limit.

Under the present practice rural carriers are permitted to handle outside the mails any package weighing more than 4 lbs., even if composed of a number of packages tied together, and the fee for this service is a matter of agreement between the patrons ordering the goods and the carrier, and seldom amounts to more than a few cents, and in a majority of cases is performed gratuitously, or the carrier will receive some fruit or some feed for his horse, which costs the farmer practically nothing.

"On the Side" Packages Forbidden.

Under Postmaster-General Meyer's plan the carrier would be forbidden to handle "on the side" packages weighing 11 lbs. or less, and the postage thereon would have to be prepaid by the retail merchant, which he could not afford, and if charged to the customer, would be a source of considerable dissatisfaction, to say the least, and in many cases it would be months before the merchant would be able to collect such charge for postage, and in the course of a year's business this amount would materially cut down his profits because considerable of it would not be paid and it would be a direct loss to him.

The Point Illustrated.

A single illustration will show the absolute impracticability of the proposed plan from the standpoint of the retail merchant. A farmer desiring to buy some foenugreek and black antimony for his cattle, and at the same time wishes some other articles that are handled by the retail druggists—soap, perfumery, tooth powder, a prescription and a few incidentals—all to be placed in one package which will not weigh 11 lbs.

The rural carrier cannot take this package and deliver it, but it must be sent by mail. If the carrier could take it, the cost of delivery would not be more than 5c, if that much, but sent by mail (supposing it weighed 10 lbs.) it would either cost the retailer or the customer for the full postage 23c. I do not believe the customer would stand this charge, and certainly the retailer could not afford to at the present prices of his goods.

Further, under the present scheme the carrier is usually given the money to make these purchases, so that his business is done on a cash basis. It goes without saying that the farmers ordering small articles over the phone, as advocated by the Postmaster-General, would expect the retailer to "charge" the purchase, to be paid for when the farmer may have a little spare cash not needed to make purchases from mail-order houses.

The Cost of Rural Routes.

Another phase of this business: The rural free delivery was started in 1897 with 44 carriers and an appropriation of \$10,000, while in 1907 there were about 4,000 carriers and the total cost was a little over \$30,000,000.

Now, if the Postmaster-General succeeds in establishing a parcels post, it will be only a short while before it will be necessary for every one of the

carriers to have a two-horse van to handle the business, and the cost will multiply many times, until the deficit in the Postal Department will be so large that the balance on hand at the end of each year in the Treasury would hardly be sufficient to meet it. Then, too, all this business will be handled to the detriment of first-class matter, and we will find that it will take twice as long to get a letter from anywhere as it does at the present time.

I do not think the people of this country will stand for anything of this kind if they know what it will amount to and are perfectly familiar with all of the conditions.—N. A. R. D. Notes.

CITY WATER SUPPLY

What can we expect from the rank and file when boards of health are indifferent? Across the bay from San Francisco lies the beautiful suburb, Berkeley. For the entire spring and summer of 1907 the water supply of a certain district of that city was so filthy as to render it unfit for bathing purposes. Complaints to the Board of Health for a long time led to nothing. A complaint by the writer elicited the indifferent response that "the water was not so bad. There are only some 20,000 microbes per Cc. present, and these are probably not pathogenic or disease producing." Surely a somewhat comatose Sunny Jim attitude! Only after numerous complaints had been presented, and after long petitions had been signed and submitted to the Board of Health and the water company was the matter remedied. The water tax is certainly high enough to warrant a potable water supply. Every hamlet, town and city should have an ample supply of pure water, not concentrated filth and sewage. An ample supply of pure water is of the utmost importance for sanitary purposes.

Original Communications

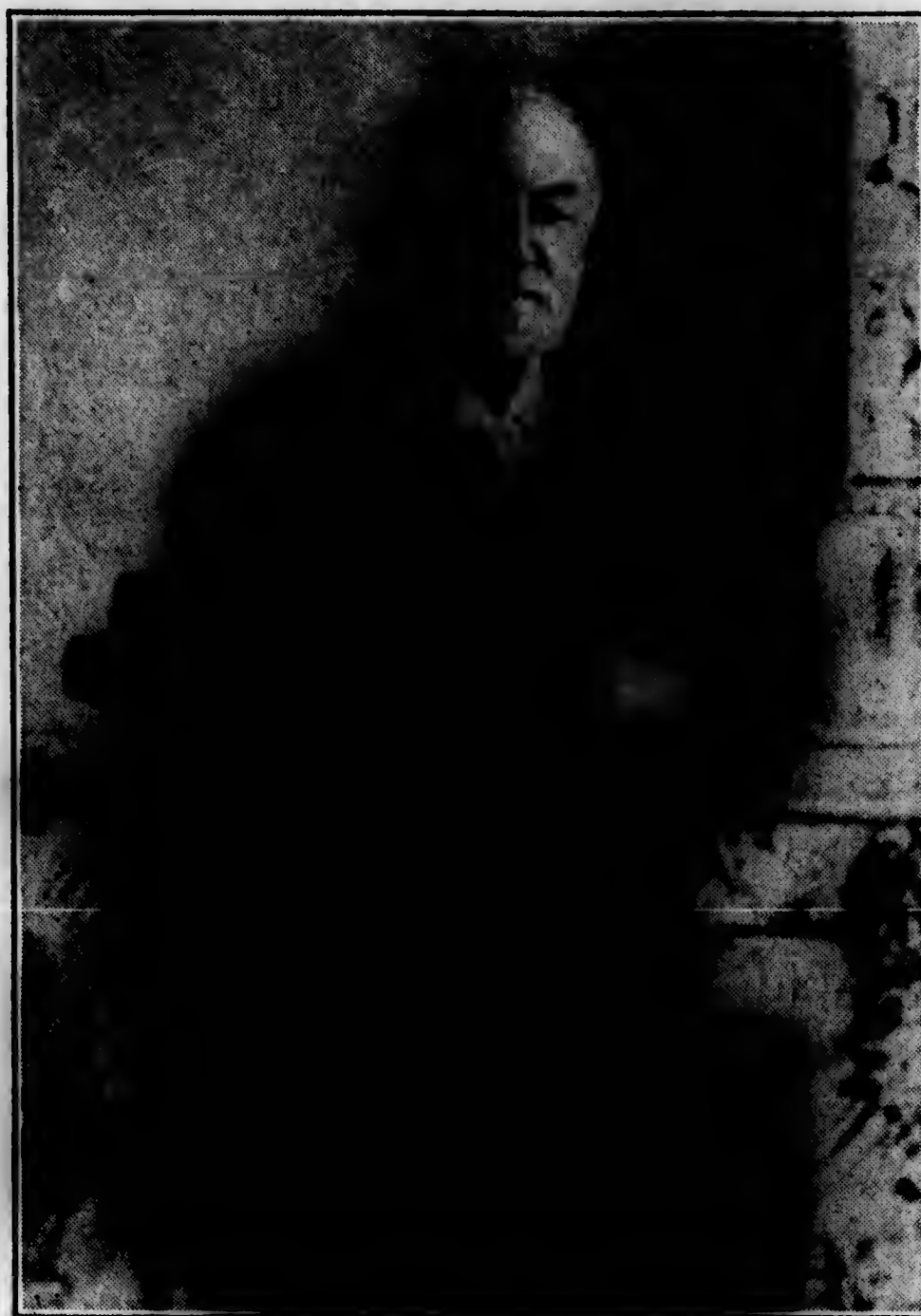
HOW TO DISTIL AERATED WATER

By Enno Sander, Ph. G., Ph. D.

The first attempts at distillation are very ancient; they may have originated simultaneously with the first endeavors of thinking man to investigate the active principles of natural products. The history of the apparatus applied to the disintegrating and recondensing of liquids, the process of distillation, with its gradual development to modern times, has been most interestingly discussed by Dr. John Uri Lloyd in his "Treatise on the Development of the Pharmaceutical Still," to which we refer for further information.

In the following we shall content ourselves with a description of the still in our factory, which has given entire satisfaction these many years. Its base consists of a spacious boiler; the size of which is indicated by the amount of water contemplated to be turned out as finished product. Its steam coil for heating the water must be in conformity with the boiler, but care must be taken to have a liberal space all around its pipes for easy and thorough cleaning, which may be necessary several times a week, dependent on the quality of water fed into the boiler.

Its conical top connects at its apex with a cylindrical, slightly conical shaft, that rises obliquely some ten feet above; this construction offers an opportunity to the less volatile vapors to become early condensed and returned into the boiler, while the most volatile will rise to the top into a horizontal drum, which is connected at



Dr. Enno Sander

Enno Sander, Ph. D., whose paper entitled "How to Distil Aerated Water" is published in this issue, It was our pleasure to reprint from the Meyer Brothers' Druggist, in July, a short account of the celebration by his friends of Dr. Sander's 85th birthday. He is still hale and hearty, erect as a soldier and just as fond of a pleasantry as the merriest fellow in town. Years have given him plenty of experience, not all pleasant, but he still retains his gentle, genial disposition and, as such a man must have, the earnest regard and affection of his many friends.

each end with the condensers by means of an elbow that is fitted into a pipe carrying pure sterilized air from the sterilizing apparatus into their upper sections.

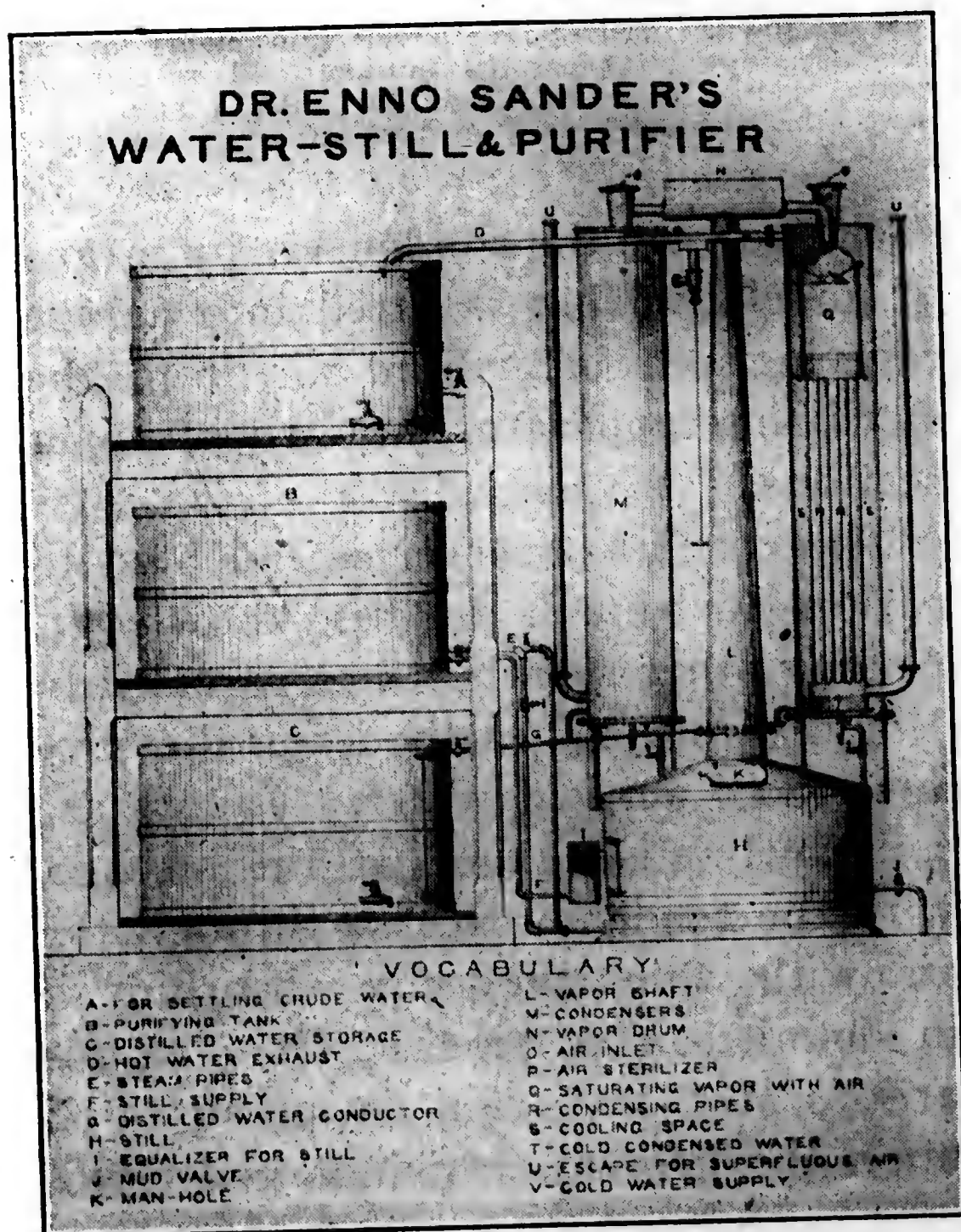
The careful observer is indebted to nature for much of his knowledge. Among other secrets it has revealed to him the rational method for the production of aerated water. Vapors are constantly disengaged at the surface, with the tendency to rise through the air, with which they mix, absorbing it in definite proportions. Then clouds are formed and rain is precipitated upon the ground, which it penetrates

in more or less quantity, and after a prolonged passage through the soil it reappears on the surface as palatable, well-aerated spring water.

This gratuitous generous example has been utilized in our still.

The condensers, two large upright cylinders, are each fastened to its platform next to and in the rear of the boiler, rising to the height of the horizontal drum of the vapor shaft, where the sterilized air pipe ensconcing the elbow with the watery vapors is fastened into its top-plate. The two pipes are fitted into each other to force their contents to intermingle intimately and absorb each other for perfect consolidation and condensation. A perforated disk in the lower part of this chamber divides the newly formed hot water to make it enter evenly into the lower portion, the actual cooling department of the apparatus.

As the distilled water has to be delivered in its reservoir at a temperature as low as that of the cooling medium, it is necessary to expose it to as large a cooling surface as can be possibly



BACK VIEW

obtained in the narrow space devoted to its passage. It descends from the upper chamber by twelve narrow tubes towards its destination, and is therefore benefitted by almost twelve times the cooling power of the ascending water before it reaches the receptacle for the distilled water at the foot of the condenser as cold as the water from the artesian well, which enters the apparatus from its bottom. The finished product, a palatable aerated water, is conducted from here by its own gravity into the reservoirs for distilled water from which the filling apparatus are supplied.

The excess of air escapes through a vent in the receiver of the distilled water.

The reservoir for the artesian well on the top of the building furnishes the water supply to all parts of the factory. The water used for the still enters the apparatus at the bottom of the condensers, as stated before, and rises in them against the descending hot water, which it cools, and at once

assumes itself a high temperature before it arrives at the top, where a valve handled from below directs its flow into the general tank for the use of the factory or to the further use of the still. In the latter case, its high temperature is utilized for a successful treatment with chemicals to precipitate its mineral ingredients in a connecting tank, where its heat is sustained for a while to accelerate a settlement, from which the clear water is drawn off into the lower tank. Here it is boiled with a solution of permanganate of potassium for one and a half hours, or until only a faint pinkish hue remains. Thus all organic and gaseous matter has been expelled, and to free it from the last trace of impurities that possibly may have escaped the influence of the reagent, it is now submitted to the process of distillation. It descends to and is fed into the boiler mentioned in the beginning, automatically by an intervening small cylinder, in which a swimmer controls the flow of the water and regulates its height in the boiler. This finishes and completes the circle of the automatic water-still.

CALIFORNIA LAWS AFFECTING THE PHARMACIST*

By A. L. Leber, Ph.G.

Member of the California State Board of Pharmacy.

On the statute books of this State there are six separate laws directly affecting the welfare of the pharmacist, namely: The Act to Regulate the Practice of Pharmacy, and generally known as the Pharmacy Law, the Itinerant Vendor Law, the Law Regulating the Sale of Poisons, the Law Regulating the Hours of Pharmacists, the Pure Drugs Law, and the Cartwright Anti-Trust Law.

* Read at the annual meeting of the California Pharmaceutical Association, San Francisco, November 14, 1907.

The first three of these laws, that is, the Pharmacy Law, the Itinerant Vendor Law and the Law Regulating the Sale of Poisons, are directly under the control of, and their enforcement is in the hands of the State Board of Pharmacy. The Law Regulating the Hours of Pharmacists is under the control of the Labor Commissioner. The Pure Drugs Law is under the control of and is to be enforced by the State Board of Health, while the Cartwright Law is a general statute and its enforcement is in the hands of the regularly constituted State authorities. Of these several laws, it will be my endeavor to give, in as brief a manner as possible, a general outline of their provisions and of those the operation of which is in the hands of the State Board of Pharmacy. I will give a short account of the manner in which the present board is endeavoring to enforce them.

The first State law regulating the practice of pharmacy was passed and went into operation in 1891, and this law substantially provided for the registration of all persons engaged in the practice of pharmacy, at that time under three classes, namely: Practicing Pharmacist, Licentiate in Pharmacy and Assistant. Graduates of a recognized College of Pharmacy could register under the law without examination by the board. That law remained in force until 1901, at which time a new law was passed which still retained the three classes of registered pharmacists, but in addition provided that all persons, whether graduates of a college of pharmacy or not, must appear before the board for examination.

In 1905 the Legislature passed an entirely new law, and with some slight changes made to it at the request of the present Board of Pharmacy, is the law under which we are now operating.

In the present law two important principles are recognized, namely: protection to the public and to the registered pharmacist. First, protection to the public by making all persons who wish to engage in the business of dispensing drugs, medicines and poisons prove themselves qualified, either by examination before the board or by proving twenty years' actual experience in pharmaceutical work. Second, protection to the person so qualified by taking the sale of such drugs, medicines and poisons out of the hands of grocers, general dealers and department stores and placing it in the hands of those to whom it properly belongs. Our present law provides for three classes of registered persons, namely: the Licentiate in Pharmacy, the Assistant Pharmacist and the Apprentice, and the powers and duties of each are clearly defined.

The licentiate in pharmacy as defined by the law is a person over 21 years of age who has at least 5 years' practical experience in a store or pharmacy where the prescriptions of medical practitioners are compounded and who shall have passed an examination before the board, and such a person is vested with full authority to conduct or carry on a business of dispensing drugs, medicines and poisons. The assistant pharmacist, as defined by the law, is one who is not less than 18 years of age, has had at least 3 years' experience in a store or pharmacy where the prescriptions of medical practitioners are compounded, and who shall have passed an examination before the board. An assistant pharmacist is given powers almost equal to the Licentiate, but the law distinctly says that no assistant shall manage or conduct a store or pharmacy, and shall be left in charge only during the temporary absence of the licentiate. Tem-

porary absence, as defined by the law, is held to be only those unavoidable absences during a day's work, and when the registered pharmacist in charge shall be within immediate call, ready and able to assume the direct supervision of said pharmacy.

And lastly we have the apprentice, or young man who enters the business and in time becomes a pharmacist. The law distinctly states that his work shall be done under the direct, immediate and personal supervision of the registered pharmacist, and that no person who has had over three years' practical experience shall be registered as an apprentice.

Many of you are undoubtedly somewhat familiar with the various sections of the law, but there are one or two sections that I desire to call to your particular notice; for instance, Section 16, relating to sale of household remedies by general dealers. This section allows general dealers in the rural districts, upon the payment of a fee of \$12 a year, to sell certain simple household remedies, provided such stores are located not nearer than two miles to the store of a registered pharmacist, and then only under such rules and regulations as may be adopted by the board. The board has adopted as a part of their regulations that only simple household remedies, such as castor oil, paregoric, ess. peppermint, senna, etc., shall be sold by such general dealers, and then only in original packages bearing the label of a registered pharmacist.

At the present time there is a movement on foot by the grocers and general dealers to test the validity of this section of the law, and probably the validity of the entire pharmacy law. An attorney in this city has sent a letter-broadcast to the grocers and general dealers throughout the State ask-

ing for subscriptions to a fund to be used for testing this section of the law. The letter is misleading in that it claims the Board of Pharmacy is trying to stop the sale of such articles as starch, borax, ammonia, and, in fact, from the tone of the letter one would think that the Board of Pharmacy, in enforcing the law, was trying to place the sale of groceries in the hands of the drug trade. Such is not the case, however. The Board of Pharmacy takes the position that poisons, and everything that is strictly medicinal, shall be sold only by registered pharmacists, while such common articles as borax, ammonia, washing soda, cream of tartar, etc., being used more for culinary purpose than as medicines, may be sold by grocers and general dealers, and the board proposes to fight the question to a finish on that line at the next session of the Legislature. There will undoubtedly be an attempt made by the grocers and general dealers to pass legislation giving them the right to handle without restriction the simpler household remedies, and it behooves all registered pharmacists in the State to stand together, and, if necessary, send a few pharmacists to the next Legislature to head off such legislation. The fight is certainly coming, and every registered pharmacist must use his best efforts to keep the sale of such remedies in the hands of the pharmacists. All of the amendments to the pharmacy law made by the last session of the Legislature, at the request of the Board of Pharmacy, were in the line of strengthening up the weak spots and in correcting several abuses that were found to exist.

We found that the fee of five dollars for examination did not begin to meet the expenses of the board for time actually consumed in such work, and

inasmuch as the medical and dental boards receive a fee of twenty-five dollars for examination, we thought that a raise of the fee to ten dollars would not be an injustice to the person who is already registered, and that those who wish to engage in the business in this State should at least pay the cost of their examination.

The present board takes the position that the renewal fee of two dollars should be used in protecting the man who is registered, and as an evidence of such fact the board has in the field from three to five inspectors whose principal duties are investigating complaints against general dealers and running down itinerant vendors.

The Itinerant Vendor act, as its name implies, prohibits the sale of drugs, medicines, nostrums, ointments, etc., by persons traveling from place to place, or from house to house, and it imposes a license tax of two hundred dollars per annum for such privileges. Before the passage of this act there were numbers of firms and individuals peddling or vending all kinds of drugs and medicines, with the result that thousands of dollars that legitimately belonged to the retail pharmacist were being taken from him by persons who paid no taxes and had no interest in the State. At the present time only some five or six firms are paying the license, and it is to be hoped that their number will grow less each year.

The law regulating the sale of poisons is an entirely new law, having been in operation only a few months, and next to the Pure Food and Drugs law, has probably caused more discussion amongst pharmacists in general than any recent pharmacy legislation. The present law allows only registered pharmacists to sell or dispense poisons, and places the enforcement of the law

in the hands of the Board of Pharmacy, where it properly belongs. Under the old poison law an unregistered person in a drug store could be prosecuted for selling strychnine, but a general dealer, absolutely unregistered, could sell it if he simply made an entry in the poison register. The present law prohibits the sale of certain habit-forming drugs, except upon a physician's prescription, and is in line with similar legislation in almost every State in the Union. There is no question that the sale of such habit-forming drugs should be restricted.

The law also prescribes that the Board of Pharmacy shall adopt an official antidote for all poisons as specified in schedules A and B, and that such antidote, and no other, must appear on the label. This might appear rather stringent to some persons, but previous to the passage of this law the writer collected a number of labels from different sources of the most commonly sold poisons, and in the case of carbolic acid no two antidotes agreed, and on only one label out of six was the correct antidote given. With such an article as carbolic acid, this is very important, inasmuch as 35 out of every 100 persons who commit suicide use carbolic acid, and in many such cases if the correct antidote was given a human life might be saved.

The board has been asked a great many questions as to the interpretation of the various sections of this law, and it is their intention to issue circular of information on the subject at an early date. It has been the policy of the board to place as broad and liberal a construction on the law as possible, and to make all its rulings on any doubtful point as fair and broad as is consistent with their duty in carrying out its provisions.

The law regulating the hours of

pharmacists was passed by the Legislature of 1905, at the request of the San Francisco Drug Clerks' Association, and its enforcement is in the hands of the Commissioner of Labor. It limits the working hours per week to 60 hours, which is long enough for any man to work, be he employee or proprietor.

The Pure Drugs law, passed by the last session of the Legislature, and which goes into effect January 1, 1908, has probably caused more discussion than any pharmacy legislation of recent years. Our State Pure Drugs law is separate from the Pure Food law, and is modeled on exactly the same lines as the National law, with only such changes in phraseology as is necessary to make it conform to the Constitution of this State. The enforcement of this law is in the hands of the State Board of Health, and they are compelled by the law to adopt the rulings and regulations of the National Pure Food and Drugs law. This law, and all others affecting the pharmacist, should be under the control of the State Board of Pharmacy, but the great State of California does not make any appropriation for the carrying out of the various laws that are under the control of the board, they deeming all such laws as class legislation. While this law was under discussion by the Legislature the legislators seemed to think that if this was placed under the control of the Board of Pharmacy the board should be able to find the necessary funds for the carrying out of the same. The finances of the board are not sufficient to carry on a work of such magnitude without an appropriation by the Legislature, and legislative appropriations are very uncertain things when you have to deal with a different legislature every two years. The State Board of Health has

not adopted their rules and regulations as yet, but have expressed a desire to co-operate with the Board of Pharmacy as far as possible in the enforcement of this law, and have gone so far as to appoint a committee from the Board of Health to meet a like committee from the Board of Pharmacy to assist in getting up the rules, regulations, etc.

And lastly, as affecting the pharmacist, we have the Cartwright Anti-Trust law. This is a general statute passed by the last session of the Legislature, and prohibits the formation of any price schedule or agreement between any two or more parties. While not aimed directly at the retail pharmacist, it seems to effectively prevent the formation of any agreed price schedule on patent and proprietary medicines.

In conclusion, the members of the present State Board of Pharmacy are endeavoring to faithfully carry out the various laws under their control, believing that in so doing they are performing their sworn duty as they see it, and in so doing they ask the support and co-operation of every pharmacist in the State of California.

BONES OF CONTENTION I HAVE RECENTLY MET WITH

By S. A. McDonnell, Ph. G.*

Some weeks ago a prescription was brought in to be filled. It read as follows:

Atropiæ Sulph	12 grains
Elix Simp	q: s: to 6 ounces
Misce et	
Sig.	
A teaspoonful three times a day.	
Dr.	

The party presenting it went out, and the prescription was marked "Do

* Read at the meeting of the California Pharmaceutical Association, November 14, 1907.

Not Put Up." So it stayed on the waiting file some two weeks, and, thinking that it was a fake, it was then destroyed with other similar things. On Labor Day the party called for it. Said he wanted it then. When informed that it was destroyed, he never wanted it as much as then, and was disposed to make a fuss about it. When told of the dangerous character of the medicine, he said he did not care; his doctor knew what was just right for him, and he was not going to be humbugged in any such manner. He went off mad as two hatters. Later the telephone rang up, and the doctor wanted to know why we had refused to fill his prescription. When told of the bone yard result likely to ensue from its use, he replied: "Pshaw! That fellow has been full of belladonna, and he needs the medicine very badly." Well, how about the two weeks he has been without it?" "Well, let's see. It was a $\frac{1}{4}$ grain to the dose, just make it $\frac{1}{8}$ grain and let it go at that." "Well, doctor, considering that $\frac{1}{60}$ of a grain is an eye-opener, good and plenty, you must excuse us for not wanting to have anything to do with it." Meanwhile the man is going to see by what right we can destroy his prescription.

I filled another prescription a few days ago calling for mercury with chalk T. T. aa $\frac{1}{2}$ grain No. XV. When the party saw the tablets, he insultingly replied that he did not want to do business with a fake shop. I returned him his prescription and told him to go elsewhere, as I did not care to do business with fakers. "Well, the doctor told me they would be yellow," he replied. "Well, it is up to you to get them yellow, you can't get them here."

Later on a large, stout man entered the store and asked if I had any com-

pound cathartic pills. "Certainly, sir; we have quite a lot of them." "Then give me 25 cents worth." As C. C. Pills are the same the U. S. over, I went and took them from the first bottle of them I reached, which were S. C. round. I put the quantity in a box and handed them to him. "Let me see them," said he. When the cover was taken off the box, "Oh, no," replied he, "them is not them." "Oh, yes," said I, so I went and got the pound bottle from which they were taken, P. D. & Co.'s Compound Cathartic Pills, U. S. P., sugar coated. "No, I don't want them." So thinking that perhaps he wanted gelatine-coated ones, I again went back and got a bottle each of the oval and the round gelatine-coated pills and placed them before him. "No, they do not look like them I gets." "Well," said I, "as a rule, all pills look alike on the outside; inside, where the medicine is, these should look like this," cutting one in two and exhibiting it to him. "No, I can tell them the minute I see them, sure; I have used them all my life." I saw it was no use to prolong the agony, and replied: "My dear sir, neither you nor I nor any man living can tell the composition of a pill by looking at the outside of it." "Oh, well, I'll go where they keeps them." "All right, sir; no harm done." He went; and I consider life too short to retain any such customers whose ignorance is their own bliss, whether I am wise or not.

A while ago a certain doctor entered the store and wanted some black calomel. "Black calomel? Why, doctor, calomel is white." "Maybe it is, but I want it black." "Well, I am sorry, I have none; in fact, I never saw any." "What? Did you ever make up any Black Wash?" "Oh, yes, a great deal of it." "Well, is not the calomel in it black?" "Surely, doctor,

you know that it is no longer calomel when changed by the lime water, changed to an oxide." "Oxide nothing! If you have not got it, why don't you like a man say so, and be honest about it?" Again, life seems too short to set the **world** right, and I lost another sale.

I had a woman customer in a while back who said she wanted some good soap. What have you in that line? "Oh, we carry everything in the soap line that has any sale at all. What particular kind do you desire?" "Well, I don't just now recall the name, but what is this a box?" "\$2.25," said I. "And this kind," said she. "That is \$1.50 per cake." "You have some still nicer, I presume?" "More expensive, madam? Surely." Thereupon I removed from the showcase and set before her some eight or ten kinds of the highest-priced French soaps. After fingering all of them, smelling of them, and pricing them, she said: "Well, I don't just see my favorite among these, but you may give me a cake of Ivory soap." All these soaps were quickly put back before I gave her the Ivory she so smoothly sought.

Another favorite trick of womankind is. "Ah, have you any face powder?" "Why, most assuredly, madam, what is the kind you like?" "Oh, well, show me some good kind." So it is up to you to mind-read her kind; so, placing several kinds before her, I say, "This is 25 cents, that 35 cents, 40 cents, 50 cents, 65 cents, 85 cents, 90 cents, and the one is \$1." As she shows hesitation, I state, "We have some still higher priced, if you desire to look at them, they are right here," so some are placed out in front of her. "Well, well, haven't you got La Blanche," meaning La Blache Powder. What can you say? You still have to worm out of her the color she wants. "Oh, yes, I'll

take the flesh, please." Now, these women both knew just what kind they wanted, but would not tell you for fear that you would know that they had not been accustomed, all their life long, to such high-priced toilet luxuries.

Another woman customer wanted some incense. "Have you any?" said she. "We certainly have, madam." "Then give me 10 cents worth, please." I went and got the can and proceeded to weigh her out 10 cents worth. "Oh," said she, "that is not incense." "Madam, I am staking my reputation that it is, and of fine quality." "Why, no; the kind I want is of a brownish color." "Oh, that's it, is it; you see, when it is of poor quality it is brownish and mixed with dirt and pieces of stems and bark, but this is in clean, nice, bright tears." "Why, it smells of pine," said she. "That may be, but when it is burnt and smoldering the true incense odor is given off. Now, madam, don't you want Fumigating Pastilles?" "Let me see them." "Do you want red or black color?" "Oh, either kind." So I got them, bringing out the black, for the reason that there were not many in the red carton. These I showed her, and more especially the printed names on the carton. She approved, and ordered 10 cents worth. Just as I was about to wrap them up she opened the wound again by referring to the red kind again. "All right, I can give you the red ones, but I understood you to say these would do." "Oh, yes, I'll take them, but you say the name is Fumigating Pastilles. Well, now, do you know, I am not a bit incensed, but would like to be a little cooler," said she, as she walked out. What is the use? You may think sulphur fumigation or cold storage, but I let it pass.

Another feminine customer will look you over, including your stock of fine

perfumes, Jickey, Ideal, Le Trefle, Djer Kiss, and many of R. & G. as well as Coty's, at \$3.50 to \$7.50 for 1 or 2 ounce bottles, and then coolly ask if you have nothing better, or "What do your best people use?" As this requires an answer, you try to inform her that some like this, some that, and others prefer the heavy odors, while all are governed by their respective tastes in that line. "Taste. Good taste. Why, I should suppose that they would be governed by their **smell**." You know what you would say after this, but you don't say it, for you know by this time that she don't want any perfume, unless it be a little put on just to try it, and you would not open one of those Coty's bottles just for her benefit, would you?

It is quite a common thing to have many inquiries for something **good** for fleas, when it is self-apparent that they, at least, want something **bad** for them. Even "Fleas Must Go" is asked for, under the impression that it is good for those — fleas.

But of all abominations, commend me to the stamp purchaser. Here she comes. "I would like some stamps." She knows how many and what sizes she wants, but you must ask her what kinds, one cent, two cent, or five cent? "Some twos, please." "How many, madam?" "Oh, 10 or 20 cents worth." Which amount shall I give you?" "Oh, yes, maybe 5 cents worth will do." You hand them to her (two twos and one one) and make her change. "Oh, would you be so kind as to stick one on this letter?" That done. "Well, now, kindly wrap a piece of paper around these others. I might lose them." No use to get mad, she may come in again, for you have stamps for sale.

Just a while ago a woman came in. "I want," said she, "some five-cent

stamps." Sorry, madam, I am out of fives, but I have some twos." "Well, just give me 20 cents worth." So I counted out ten two-cent stamps, took her money and went about my business. Soon she called me, saying: Why, you only gave me 15 cents worth of stamps." It is awful hard to dispute such things with a woman, but glancing at her letters I saw that she had placed on two of them three two-cent stamps, and was about to place three more on another letter, but to her surprise this would only leave one for the fourth letter. So I counted out, "Three on this letter, three on that makes six, and three you are about to put on the other letter makes nine, and this one left makes ten at 2 cents each, makes 20 cents, madam." "Yes, but I have only one stamp for my fourth letter, and goodness me, four fives are twenty." "Oh, yes, madam, but don't you see that you're putting 6 cents on each letter, and four times six would be twenty-four, while you only bought 20 cents worth?" This transaction lasted fully fifteen minutes before she was satisfied. The dry goods man, the grocer, women's special friends, don't keep stamps for sale. Why? Because that fool druggist has them.

A few nights ago a man had a prescription filled calling for sixty capsules. The genius who filled it only charged \$1.00 for it (it took him fully an hour to make it). In due course of time the man wanted them renewed, but thought he would only need half of them. As it happened, I waited on him this time, and recognizing the long time required to put them up, I told him 65c for half. "What? Why, man, I only paid a dollar, and half quantity would be 50 cents." "Oh, yes, my dear sir, but just consider that it takes practically as long to put up half as

it does the whole, and the time counts in the cost of the article." "Why, this is an outrage." "Now, look here," said I. "For argument's sake let me say that the man's time costs me $33\frac{1}{3}$ cents per hour (\$100.00 per month, ten hours per day). It took him fully (if not more than) an hour to make them for you, and, say material costs 40 cents, and allow 25 cents (or so) for profit, which foots up about \$1.00. Now, if only half is taken at 50 cents, the time is practically the same, $33\frac{1}{3}$ cents, and 20 cents for the medicine, equals $53\frac{1}{3}$ cents, for which you want to pay but 50 cents. Is that a fair proposition?" "Oh, that is all nonsense," said he. "I am in the dry goods business, and it is just as easy to cut a half a yard as it is a whole yard." "Is it? Let us see, now: Unless your customer is different from the average woman it would take that woman half an hour to select the piece of calico that she needed, your profit on which was 5 cents, your time, say, 25 cents per hour, equals $12\frac{1}{2}$ cents, but as she only takes half a yard, the time is still $12\frac{1}{2}$ cents and the profit but $2\frac{1}{2}$ cents, hence you are out just 10 cents, to say nothing of other running expenses. Fine business!" He looked at me, and, muttering "Well, I'll be damned," walked out. But whether it is he or I that is to be damned I am at a loss to know. He has been in since and takes the \$1.00 worth, and has nothing to say.

Deafness is a great misfortune and should call for any one's sympathy, but when the repeater assumes this affliction, and has it not, exasperation does not cover the ground. When the repeater comes in, and in reply to her question you offer an explanation more or less lengthy and she replies, "Beg pardon. Eh? Umph? What did you say?" You repeat, and soon tire of

offering any explanation. Recently I was waiting on such a person, and after the third or fourth repeat to some simple questions, I was again greeted with "Umph?" So, looking straight at her I made my lips move but uttered never a sound. To my surprise she replied correctly to my previous utterance, "Oh, to be sure, I'll just take one," indicating a despicable habit.

Not long ago a man and a woman entered the store, each carrying two dress-suit cases (one in each hand). Up spoke the woman, saying, "Have you any place for checking these cases?" Now, accommodation is one thing and imposition another. So I looked at the pair and concluded that I was at least a druggist (and not a porter), and so politely as I could replied that I had no way of checking the articles for them, and without a check any one else might claim them. "What? No checks," said she, and turning to her companion, she said, "Did you ever hear of such a thing?" all six of them departing in the meantime.

Another great nuisance. A lady will enter a store saying, "Oh, I am afraid that I have gotten some grease or paint on my dress; will you please take it out for me?" Since the time I was threatened with a suit for removing paint from a woman's dress, at her urgent solicitation, and who claimed I ruined her dress by a greater stain than the paint, I quit the clothes cleaning business and respectfully proffer her or them a towel and some benzin (or similar article), and suggest that she remove it herself. Then I am asked, "But haven't you some chloroform?" "Oh, yes, indeed, if you prefer it. How much shall I give you, 10 cents worth?" "Oh, well I am not prepared to buy any just now." "Well, then, you will find the benzin just as

efficacious." Oh, what fools we druggists are to let ourselves be so imposed upon.

Another trick. Enter woman—"My dear sir, pardon me, but would you kindly let your boy deliver this message for me? It is only a few blocks from here." "Well, madam, since the "Fire," boys are an unknown quantity. I have none, and the clerks object to being made boys of. But I have a messenger call-box here, shall I ring for a messenger for you?" "Well, the fact of the matter is, my dear sir, I have not my purse with me." When it comes to taking some hints, my head is as thick and hard as an anvil and the more you try to beat it the less you accomplish.

Another imposition. The telephone ring will call you to it, only to be told would you kindly deliver a message to so and so around the corner, or would you send around the corner and inform so and so that some one on the telephone wants to talk to him, or her, at your place? We now have the telephone so educated that these kind of messages invariably fail to be understood, the telephone service being very bad.

Another feature: "Will you be so kind as to look up such and such an address in the Directory for me. I left my glasses home and I am lost without them." Here is where the boy begins to earn his salary.

And, again: "You have a telephone, I presume?" "Yes, right at the corner there." "Oh, yes, but won't you call up Mr. Jones for me? I am not a good hand at telephoning." "Well, now that is fortunate, for they have a new girl on as central and she is very anxious to learn, so that she will be so glad for you to aid her getting experience, and I am sure you will appreciate her endeavor to gratify you." This usually

ends in silent profanity and boisterous exclamations, together with the loss of a nickel. Meanwhile I am very busy and greatly afflicted, being deaf, dumb, and blind.

Another snide trick: A person enters and hands you a package, meanwhile saying, "I got the wrong medicine." When you have unwrapped the package you find it to be some patent medicine which she has opened, destroyed the wrapper and used, say one-quarter of it. She then quickly volunteers to say it did her no good and is not the kind wanted. I generally convince, or rather impress, such persons that they did not get it in my store, and so start an endless chain with her and the other fellow, who if fool enough to give her another article, only encourages her in this nefarious practice.

There are many things, such as ice bags, bed pans, urinals, catheters, syringes, etc., purchased, and having served their purpose, are returned with the information that they were never used, and money back is expected. I put my foot down in all such cases, and inform them that if such things were taken back, only to be given to some innocent purchaser, many a foul disease might be communicated by them, and if that protection is not worth more to the customer than the cost of the article, I, at least, will not be a party to the return transaction. Now, some fellow pharmacists must be propagating some such iniquity, else why so many apply for this meanest of all exchange accommodations? And still there is no end. As these annoyances continue right along, the public must feel that a long-suffering **servant** don't need any sympathy, even if he does sell at cut rates. He can make it up on his prescriptions. Then they won't give him their prescriptions un-

less **they** fix the price; and so it goes. Not having any policemen to whom I might tell my troubles, I have made so bold as to submit a few of them for your edification, fully knowing that you have ever so many of your own.

PHENOL AND SUICIDE

By Henry B. Carey, B. S., M. D.*

This subject, which I believe is not new to you, I venture to offer at this time because of the extraordinary importance attached to it. I propose in the very brief review of the subject of phenol to recall the chief items of historical interest, the physiological action locally and generally, including symptomatology and toxicology. I hope to show the chief danger attending the use of **phenol** and to show, if possible, the necessity or advisability of limiting the number of deaths directly caused by this from accident or suicidal intent.

Phenol is one of the derivatives of the coal tar industry, having the formula of C_6H_5OH (Hydroxy benzene), commonly known to the laity as carbolic acid, which is really a misnomer. It is not a true acid, either chemically or physiologically. Pure carbolic acid melts at $42^\circ C$. It is soluble at $25^\circ C$. in 19.6 parts of water, freely soluble in glycerin, alcohol, ether and oils, glycerin and alcohol being the best solvents.

The antiseptic properties of the natural coal tar mixtures have long been known. The practice of smoking meat to preserve it was known even to the ancients. It was one of the methods of embalming employed by the Egyptians, who utilized the balsams and products rich in essential oils. But the separation of coal tar into almost num-

* Read at the First Annual Meeting of the California Pharmaceutical Association, November 14, 1907.

berless products belongs to the achievements of the nineteenth century. Phenol or carbolic acid was not isolated until 1834, and did not come into general use as an antiseptic until thirty years later. When Lister announced the principles of Asepsis and Antisepsis, this substance came rapidly to the front as the most important known antiseptic. Indeed, as always happens in the midst of unbounded enthusiasm attending new discoveries, it was used so freely that it no doubt helped many an unfortunate patient to an early grave. Even some of our older surgeons of today recall the time when the field of operation was not thought to be safe unless a fine spray of carbolic acid was being continuously used. Many of the surgeons suffered from chronic phenol poisoning.

The physiological action may briefly be considered under two headings; (1) local, and (2) general. When pure carbolic acid is applied to the skin or mucous membrane it acts as a caustic. It produces burning, pain; then numbness and anæsthesia. It destroys the structure of proteids (a molecular rather than a chemical process), and in consequence, protoplasm itself. It is therefore free to penetrate deeper because not being combined with the proteid. Hence its great toxic power.

The protoplasmic toxicity of phenol is very great, and this accounts very largely for the irritant and antiseptic action. In 5% solutions it is not ordinarily caustic, unless applied continuously for a considerable length of time. If taken internally it shows its irritant properties by the production of a nephritis, albuminuria, hemoglobinuria and other pathological changes.

Phenol prevents putrefaction in $\frac{1}{2}$ % to 1% solutions. A 5% solution suffices practically in almost all cases to prevent fermentation or bacterial

growth, which is really all that is required in the treatment of open wounds.

Internally phenol at first in even very small doses produces analgesic and antipyretic action. This action is so uncertain and fleeting in character that it does not constitute a valuable asset in therapy. The next stage which, with toxic doses, comes on almost immediately is that of excitation, exhibited by muscular tremors, twitching and convulsions. The centers of circulation and respiration are at first stimulated. This, with convulsions, causes blood pressure to rise. In the collapse stage the heart is weakened and slowed. Finally there is paralysis of the vasomotor system, and in consequence a marked fall in blood pressure. The respiration finally becomes slow and ceases. The phenomena resemble those of surgical shock. A peculiarity of it is that sensibility to pain is often preserved far into the stage of collapse.

Phenol is much more poisonous than most people realize. Toxic symptoms may be produced promptly by absorption from external applications, as well as when taken internally. The amount taken by the mouth without showing toxic symptoms varies greatly, depending upon the concentration. Eight-tenths of a grain has been given therapeutically without bad results. When toxic doses are taken there is burning, nausea, vomiting and abdominal pain, followed by a very speedy collapse. It is manifested by faintness, muscular weakness, sometimes twitching and convulsions; pulse small, weak and slow; face livid; cold sweat, respiration slow and shallow, unconsciousness, coma and death. The course of phenol poisoning is rapid, the majority of patients not surviving twenty-four hours.

One of the social evils of the day is

suicide, in the causation of which phenol plays no small part. This evil is particularly common in the United States. Accidental poisoning is also becoming quite an important factor in the death rate from carbolic acid. Owing to the fact that in the vital statistics thus far no separate account has been made for phenol, it makes it difficult to quote figures that are at once satisfactory and convincing. However, some of the cities in the United States have had their attention so forcibly attracted to the importance of the subject that a few figures are now available.

Out of 158 deaths from **accidental** poisoning in Greater New York during the year 1904, there were 59 from carbolic acid, or approximately 38%. This percentage is so high that it cannot help but call our attention forcibly to the fact that carbolic acid is a dangerous remedy when handled carelessly.

Out of 853 suicides there were from poison as follows: aconite, 1; arsenic, 6; bichloride of mercury, 2; carbolic acid, 294; chloroform, 1; cyanide of potassium, 8; morphine, 8; opium, 7; oxalic acid, 2; paris green, 9; potash, 1; rough on rats, 2; other poisons, 9. These figures show the great predominance of carbolic acid, which is here responsible for 35.6% of all these suicidal deaths, and 85% of all the deaths due to drugs or chemicals. These figures are quite representative of all the large cities in the United States where steps have not been taken to check death from this cause. Unfortunately in this State vital statistics are compiled in such a manner that it is not possible to say what percentage of deaths from poisons is due to carbolic acid. However, during the fiscal year 1904-1905 there were 474 deaths by suicide in California. Of this number, 147 were suicides by poison. A most

conservative estimate would place at least 50% to the credit of carbolic acid, and, indeed, if we were to have an opinion upon newspaper reports from the larger cities, it would be nearer to 85%, as in New York.

According to figures obtained from Dr. Wm. J. Walsh, Coroner of the City and County of San Francisco, the number of suicides in San Francisco from July 1, 1906, to July 1, 1907, was 131. Of this number 27, or over 20%, came to their death from carbolic acid poisoning.

The accidental deaths from carbolic acid are more numerous than usually suspected. It is not uncommon to read of cases where the fond mother, or the well-meaning but ignorant nurse girl, arises from slumber to give the fretful child "knock out" drops of one brand or another, only to realize a little later that carbolic acid, which was also in the medicine chest, was used instead with almost immediate fatal results. This cause of death is doubtless not always properly recorded. The kind physician, out of sympathy for the unfortunate family, or to prevent the distracted mother from going to the asylum, signs the certificate with causation of death as "convulsions," or with some other equally vague phrase or word.

The Proprietors' Association of America keep a record of all the accidental deaths due to medicinal agents, and for the six months ending December 31, 1905, reported 76 deaths as being due to carbolic acid.

The foregoing figures and specific citations and illustrations, together with your own observations and knowledge concerning this question, will, I hope, amply demonstrate that this question demands more than mere passing comment. Nay, it demands action of some kind which will limit

the number of unfortunates who are victims of this agent.

The question now arises, what remedy can be offered? By way of prefacing my further remarks I may say that I am fully aware that the pharmacist is already pretty well surrounded with limitations and red tape of one sort or another, yet I present this subject and the partial solution of the same without apology, as I feel that it is for the public good, to which personal ends and exceptions should always be sacrificed.

You are doubtless aware of the fact that a number of cities have already passed ordinances limiting the sale of carbolic acid to 5% solutions, unless mixed with equal parts of glycerin and alcohol, or called for upon a physician's prescription. Chief among these cities are Chicago and St. Paul, the latter city passing the ordinance in September, 1903. Chicago passed its ordinance in March, 1904. The death rate from carbolic acid became so high that these cities recognized the necessity of limiting it in some manner. The following is a copy of the ordinance passed by the Chicago City Council:

Be it ordained by the City Council of the City of Chicago:

Section 1. It shall be unlawful for any apothecary, druggist or pharmacist, or any employee thereof, of any other person whatever, to sell, barter, exchange, give away, dispose of or deliver to any person within the limits of the City of Chicago, any carbolic acid or any extract or product thereof, or any preparation or compound of which it is an element or ingredient, containing more than five per cent of carbolic acid, except upon the written prescription or order of a duly licensed physician, as provided in this ordinance, and except upon the day or date of said prescription or order, and there shall be for each such sale, barter, exchange, gift, disposition or delivery, a special and distinct order or prescription in each and every instance.

Sec. 2. The prescription or order must

have the date thereon of the day on which it is made and be signed by the physician, who must be a graduate in medicine, and as such, have a diploma from a legally constituted or chartered medical college or medical institution, and it must contain the name and residence of the patient for whom it is intended, and the number and street or place of the physician's office or residence.

Sec. 3. Said prescriptions and orders shall be open for inspection by the Coroner, State's Attorney, assistant State's Attorney, City Prosecutor, assistant City Prosecutor, Chief of Police, or any regular police officer of this city. Said prescriptions and orders shall be kept and preserved for three years after receiving same. It shall be unlawful for any person to refuse or prevent in any manner, or by any means, the inspection of said prescriptions or said orders, or any thereof, by any of said officers, or for any of the persons mentioned in Section 1 of this ordinance to fail or neglect to keep or preserve said prescriptions or orders, or any of them, as provided herein.

Sec. 4. It shall be unlawful for any person to present any false or forged or untrue or fictitious prescription or order for any carbolic acid, or any extract or product thereof, or any preparation or compound of which it is an element or ingredient, or to obtain the same by means thereof, or to give any false or fictitious name or to give or make any false statement, or any false representation to obtain or in obtaining the same.

Sec. 5. It shall be unlawful for any physician to put a wrong or false date on any order or prescription for any carbolic acid, of any extract or product thereof, or any preparation or compound of which it is an element or ingredient, or to wilfully give any such order or prescription containing any false statement or representation of any fact or matter therein, or to give any such order or prescription for a dose or quantity greater than usual or necessary for bona fide purposes to cure or prevent sickness or disease.

Sec. 6. The foregoing sections shall not apply to the sale of crude carbolic acid in quantities exceeding one gallon, or to the sale of a solution or mixture containing equal portions of carbolic acid, glycerin and alcohol, nor to the commerce or the trade to or between wholesale druggists and retail

druggists, apothecaries, or pharmacists, or sales or gifts to public institutions, charitable institutions or hospitals for medical use therein.

Sec. 7. Any person violating any of the provisions of this ordinance shall be subject to a penalty of not less than ten (\$10) dollars nor more than one hundred (\$100) dollars for each offense.

Sec. 8. This ordinance shall be in force and effect from and after its passage and due publication.

In St. Paul the ordinance has worked so satisfactorily; and has been productive of so much good, that the Board of Pharmacy presented a bill to the legislature, copying almost exactly the St. Paul ordinance. But the measure failed of passing, owing to the lack of understanding of the measure among the country pharmacists.

To show you the effect of the ordinance in St. Paul, when, in 1903, there were 13 deaths from this cause, the number has been reduced to 1 in 1906, and direct evidence was had that this death was due to carbolic acid that had been purchased previous to the passage of the city ordinance.

The following is a copy of the proposed law, which is practically a copy of the St. Paul ordinance:

AN ACT TO REGULATE THE SALE OF CARBOLIC ACID AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF.

Be it enacted by the Legislature of the State of Minnesota.

Section 1. That no person shall sell or give away any carbolic acid, or any compound or preparation containing more than five per cent of carbolic acid, except that it be a mixture of equal parts of carbolic acid, glycerin and alcohol, or except upon the written prescription of a duly licensed physician or veterinarian. No prescription for carbolic acid shall be filled more than once, and each shall have written plainly upon it the name and address of the patient and be filled and preserved by the pharmacist, who shall not give a copy thereof.

Sec. 2. Any person not a duly licensed physician or veterinarian who shall write or give a prescription for carbolic acid shall be guilty of a misdemeanor and subject to the penalties hereinafter provided.

Sec. 3. The foregoing sections shall not be so construed as to apply to sales by manufacturers or wholesale dealers to pharmacists, hospitals, public institutions or manufacturers, or to the sales of crude carbolic acid in quantities exceeding one gallon.

Sec. 4. Any person violating any section of this act shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty (\$50) dollars nor more than one hundred (\$100) dollars for each and every offense, or by imprisonment in the county jail for not less than thirty (30) days nor more than ninety (90) days.

Sec. 5. All fines collected under the provisions of this act shall inure to the State Board of Pharmacy.

Sec. 6. This act shall take effect and be in force from and after its passage.

Mr. Chas. T. Heller of the Minnesota State Board says that the working of the ordinance has been very satisfactory to the druggists of St. Paul, and as it becomes better understood there will be little if any opposition among the country druggists to the proposed law. He is hopeful, therefore, that the proposed law will soon be enacted.

The foregoing has, I hope, shown the need in the first place of some regulation of the sale of phenol. In the second place the feasibility of such regulation has, I hope, been sufficiently demonstrated. In brief, the object of this paper then is to urge upon the profession, and the State Board in particular, the need and feasibility of such a regulation. If for any reason we are unable to obtain a State regulation at the present time, I should urge that municipal ordinances somewhat in line with those of Chicago and St. Paul should be adopted, particularly in the large cities of our State. Here the

greater number of accidents and suicides in particular occur. Here is the greatest stress and strain. Here is the heterogeneous population, and many other factors which have to be reckoned with in the etiology of suicide.

In urging the adoption of some reasonable regulation for the sale of phenol, and allied toxic substances, I do not mean to imply that it will be a panacea for one of our social ills, viz: suicide; but that it will at least prevent the accidental deaths that now are so numerous, and in no small measure limit suicides.

To summarize briefly, then, it may be said that:

(1) Phenol is decidedly toxic in concentrated solutions, whether used internally or externally.

(2) It ought never to be used beyond 5% strength by those who are not skilled in its use, unless mixed with equal parts of glycerin and alcohol, whereby the toxic and antiseptic properties are markedly lessened.

(3) When used in solutions of 5% or less it serves every rational medicinal purpose except that of a caustic. When desired as a caustic, it should be used only by or under the direction of a physician.

(4) When handled as directed in the above ordinances, it would still be possible to obtain the lethal dose, but the time of action would be greatly delayed and there would be ample opportunity in most cases to save the patient.

(5) The high percentage of deaths, accidental and suicidal, from phenol imperatively demands that some action be taken to protect and conserve the public interest.

(6) It has been demonstrated that we need some regulation for the sale of this substance, and the ordinances which have been quoted and tried have

been shown not to cause the pharmacist any undue hardship, and at the same time to help in a marked degree the public good.

PLANTS USED BY INDIANS AND THE EARLY SPANISH SETTLERS OF CALIFORNIA

By E. E. Johnson, Ph. C.

In presenting the following list of plants used by Indians and the early Spanish settlers of California, it is not the writer's intention to mention plants official in the Spanish pharmacopœia, or those used by regular physicians, but rather those in common use by the laity for the relief of common ailments, in the absence of physicians.

The medicinal virtues, real or fancied, of the many varieties and species of plants used, have doubtless been learned from the Indians. In many instances, the methods of their use have been handed down from generation to generation, practically the same plants being used at the present time that relieved the ailments of the Indians and earliest settlers.

The data were collected from histories of early days in California, and through verbal reports from relatives and friends of Spanish physicians who practiced medicine in California long before the discovery of gold. The subsequent rapid influx of many other nationalities with newer and more efficient methods of treatment with drugs of known and tested virtues, has caused a gradual disappearance of the crude earlier methods.

The writer takes this opportunity of expressing his grateful obligations to Mrs. Joaquin Romero and Mrs. M. J. Gates, of Mountain View, Mrs. Joseph Scull, of San Jose (Spanish interpreter for the County), and others who by

their kind assistance in supplying data have made this paper possible. Mrs. Joaquin Romero is a daughter of Dr. Prudencia Espinoza, a regular physician, who practiced in Monterey, Salinas, Gilroy, and later in San Jose for a period of ten years. Dr. Espinoza was well versed in botany, a knowledge of which his daughter acquired and utilized for the relief of her people after her father's death. Mrs. M. J. Gates is a woman of many accomplishments, being particularly well informed on the early history of California, and having a knowledge of botany and allied sciences enjoyed by few women. She rendered valuable assistance in identifying many of the plants listed.

The beneficial action of some of the plants used was probably due to the methods of application, as they contain no appreciable active principle. Most of them were (and are) used as infusions or decoctions, a majority of them having diaphoretic and diuretic effects on the system, those containing aromatics or volatile oils acting as carminatives in stomach troubles. The efficiency of those used as poultices was no doubt due to the continued application of heat, rather than to any medicinal properties in the plant. Some are used in medical practice today, as yerba santa, grindelia, aspidium, yerba buena, and others, and these have undoubted therapeutic value as febrifuges, as local applications, and for the correction of various other pathological conditions.

Little or no analytical work has been done on these plants, and it offers a good field for future investigation. In the absence of these chemical data we can only assume, as stated, that in some instances at least, the methods of application influenced and modified the results gained. Certain it is that these roots, herbs, and flowers were

used by the educated and the untutored alike, and the results attained were no doubt quite as satisfactory to them as those of today secured by coal tar derivatives and the surgeon's knife. One plant in particular (*Erythraea Muhlenbergii*,—*Canchalagua* — *Gentianaceae*) seems to enjoy an excellent reputation among the Indians and settlers as a febrifuge and anodyne, and would be very likely to yield encouraging results on careful analysis. Its physiological action seems to resemble that of quinine, perhaps due to alkaloids or constituents of a similar nature. The list of plants is appended, not, however, claiming completeness or that no others are used, for on the contrary there may be many upon which I have been unable to get data.

***Achillea millefolium*, L.** Common yarrow, milfoil. *Compositae*. Decoction and poultices, enjoys an excellent reputation in the treatment of neuralgia, toothache, sore gums, and stomach troubles.

***Adenostoma fasciculatum*, H. & A.** Greasewood, chamisal. *Rosaceae*. Oil extracted, mixed with lard and used in the treatment of skin affections. Tea from leaves and bark given internally for syphilis.

Allium*, L.** (many species). Wild onion. *Liliaceae*. Decoction used for kidney troubles, and as an emmenagogue. (Allium Bolanderi*, Wats** and ***Allium falcifolium* H. & A.** used mostly.)

***Adenostoma fasciculatum*, H. & A.** *mansa* (*Saururaceae*). Decoction used for stomach-ache and bowel complaints.

***Artemisia heterophylla*, Nutt.** California Mugwort. *Compositae*. Decoction and poultices highly praised as a remedy for poison oak, also to check hemorrhages and to heal wounds.

***Asarum Caudatum*, Lindl.** Wild gin-

ger. *Aristolochiaceæ*. Infusion used for female complaints.

Asclepias eriocarpa Benth. Milk weed. *Asclepiadaceæ*. Claimed to be one of the best remedies for inflammatory rheumatism. The juice is also used as a healing application to cuts and wounds.

Asclepias Mexicana, Car. Milk weed. *Asclepiadaceæ*. It is claimed that an insect resembling the Spanish fly, *Cantharis*, settles on this plant, and transmits to it the same vesicant and diuretic properties.

Aspidium rigidum, Schwartz. Shield fern, yerba del golpo. *Polypodiaceæ*. Used as tæniifuge (same as **Aspidium filix mas**). Poultices made from mashed roots used externally for swellings, etc.

Berberis aquifolium Pursh. Oregon grape root. *Berberidaceæ*. Used as an alterative, though not very highly praised.

Blepharipappus Douglassi, H. & A. Greene. (*Layia Calloglossa Gray*). *Compositæ*. Decoction prepared with equal parts of milk and water, cooled and used as an application to sore and inflamed eyes.

Brodiaea Lactea Wats. (*Hookera Hyacinthina Lindl. var. lactea Baker*). Ookow, Indian Potato. *Liliaceæ*. Corms eaten as food both raw and boiled, by Indians.

Chenopodium album L. Pigweed, White Goosefoot. *Chenopodiaceæ*. Claimed to possess cholagogue, cathartic properties and is given in stomach and gastro-intestinal disturbances. **Chenopodium Californicum Wats** is used as a substitute for soap, much like chlorogalum (soap plant).

Chlorogalum Pomeridianum Kunth. Amole, Soap Plant. *Liliaceæ*. Used as a hair tonic, also extensively used as a substitute for soap in washing clothes, etc., the same way that **Quillaja** and

Saponaria are used. Hot poultices of leaves are used to clean chronic ulcers.

Collinsia bicolor Benth. *Scrophulariaceæ*. Poultice of the leaves used for insect bites.

Datura Stramonium L. Stink Weed, Jimson Weed. *Solanaceæ*. Owing to its poisonous properties is not used except by regular physicians.

Echinocystis Marah Cogn. Big Root, Hill Man Root. *Cucurbitaceæ*. Contains an acrid drastic poisonous juice. Has properties similar to *Chlorogalum* and is employed in the same manner.

Epilobium Franciscanum Barbey. Willow Herb. *Onagraceæ*. A decoction of the whole herb highly praised in inflammatory conditions of the alimentary canal.

Eriogonum Virgatum Benth. Wild Buckwheat. *Polygonaceæ*. Syrup prepared from the entire plant, used for bronchial coughs.

Eremocarpus Setigerus Benth. Turkey Mullein, Yerba del Percado. *Euphorbiaceæ*. Decoction used for inflammation of the kidneys, ague, and also for cuts on horses. Crushed leaves used to catch fish by stupefying them.

Eriodictyon Californicum H. & A. Greene. Yerba santa. *Hydrophyllaceæ*. This plant is held in great esteem throughout California and is probably used more than any other native plant. Indians chewed the leaves for severe colds. Decoctions and poultices in large quantities and often applied are claimed to relieve rheumatism.

Erythraea Muhlenbergii Griseb. Canchalagua. *Gentianaceæ*. This and *Erythraea luecantha Griseb* enjoys an excellent reputation among the Indians and settlers as a febrifuge and anodyne. Old settlers call it "opium plant".

Eschscholtzia Californica Cham. California Poppy. *Papaveraceæ*.

Flowers put in oil and placed in the sun, used as an application to cleanse the hair and scalp.

Filago Californica Nutt and Filago Gallica L. Compositæ. Decoction of whole plant used for fever and ague.

Galium L. (many species). Decoction of whole plants used for kidney troubles. *Galium triflorum* used in preparing "May drink."

Gilia squarrosa H. & A. Skunk Weed. Polemoniaceæ. Decoction of whole plant used for indigestion and stomach troubles. Powdered leaves used externally for sores, fistulæ, etc.

Godetia (many species). Onagraceæ. Leaves mixed with lard, heated and strained, when cool, used as an application for chapped hands, etc.

Grindelia robusta Nutt. Wild saffron. Compositæ. The old settlers used this plant, (much praised in medicine today as a remedy for poison oak symptoms) for inflammatory rheumatism, giving large quantities of decoction and applying poultices of the leaves.

Helenium puberulum B. C. Sneezeweed. Compositæ. Compound flowers powdered and used as snuff for catarrh. Joseph Lauer, of Mountain View, bottled and sold large quantities as a catarrh cure.

Hoosackia, (Lotus L.) (many species). Papilionaceæ. Powdered leaves applied to sore eyes. When mixed with lard it is applied to burns.

Iris macrosiphon Torr. Ground Iris, Wild Damiana. Iridaceæ. Held in great esteem by Spanish and Mexicans as an aphrodisiac and emmenagogue.

Matricaria discoidea D. C. False Chamomile. Compositæ. Decoction of entire plant extensively used for infantile colic.

Micromeria Chamissonis Greene. Yerba Buena. Labiatae. Tea used as

an every day drink, probably has slight carminative and diuretic properties.

Mimulus Langsdorffii Donn. Monkey Flower. Scrophulariaceæ. Decoction of roots used for diarrhea and dysentery.

Nicotiana Bigelovii Wats. Indian Tobacco. Solanaceæ. Used as snuff, also mixed with manzanita leaves and smoked.

Peucedanum Caruifolium T. & G. Umbelliferae. Corms of female plant relished as food.

Phordendron flavescens Nutt. Yellow Mistletoe (thrives on cottonwood). Loranthaceæ. Tea made and held in the mouth for toothache.

Plantago major L. Plantain. Plantaginaceæ. Infusion of leaves used as gargle in diphtheria. Poultices made from leaves for reducing swellings from poisonous insect bites.

Rumex crispus L. Curly Dock, Yellow Dock. Polygonaceæ. Decoction given for inflammation of bladder, fevers and colds.

Sambucus Glauca Nutt. Sowks, Elder Flowers. Caprifoliaceæ. Infusion of roots claimed to possess powerful sudorific properties in fevers and colds. Berries are eaten.

Sisyrinchium bellum Wats. Blue-eyed grass. Iridaceæ. Decoction highly praised as an emmenagogue.

Smilacina sessilifolia Nutt. False Solomon's seal. Liliaceæ. Decoction for diarrhea.

Solanum Umbelliferum Esch. Solanaceæ. Fruit is mashed, oil expressed and used as an application to pimples. Decoction of roots for stomach-ache and bowel complaints.

Solidago Californica Nutt. Goldenrod. Compositæ. All *Solidago* species are credited with diuretic properties. Decoction of entire plant, also powder, used to clean old sores.



Sonchus Oleraceus L. Sow-thistle. Compositæ. Young plant eaten as salad.

Stachys bullata Benth. Hedge nettle. Labiatae. Used as cough medicine.

Thalictrum polycarpum Wats. Meadow Rue. Ranunculaceæ. Decoction of roots used for colic and stomach-ache.

Trifolium (many species). Clover. Leguminosæ. Decoction used as a soothing application for poison oak.

Umbellularia Californica Nutt. Mountain Laurel, Bay Tree. Lau-

raceæ. Used in flavoring beans, etc., in cooking. Branches put in beds and rooms to drive away fleas.

Verbena Prostrata L. Common Vervain. Verbenaceæ. Decoction for malaria, chills and fever in general.

Verbena Hastata L. Blue Vervain. Verbenaceæ. Decoction for malaria, chills and fever in general.

Zygadenus Venenosus Wats. Hog's Potato. Liliaceæ. Supposed to be very poisonous, but hogs have been observed to eat bulbs greedily and without apparent ill effects.

MEDICINAL AND POISONOUS PLANTS OF CALIFORNIA

By Albert Schneider, Ph. D.

Professor Economic Pharmaceutical Botany, Histology and Bacteriology in the California College of Pharmacy.

148. **Astragalus lentiginosus**. Loco weed. Papilionaceæ.

Poisonous, requires further study. **Astragalus lentiginosus** (Douglas) Var. **Fremontii**. W. W. Keim, California College of Pharmacy, 1903. Thesis.

149. **Astragalus mollissimus** Torr. Woolly loco weed. Papilionaceæ.

Native of the great plain region of the United States. A highly poisonous weed which has done inestimable damage to ranchmen. Between 1881 and 1885 the State of Colorado paid out nearly \$200,000 in bounties to eradicate the weed.

The poisonous principle has been studied, however, with unsatisfactory results. An acid (loco acid) has been isolated, to which the poisonous properties are attributed. Requires further careful study.

150. **Atriplex** species. Chenopodiaceæ.

Used as food and medicinally by Indians and Mexicans. They are rich in impure soda. (Palmer Proc. A. Ph. A. 27:153. 1879.)

151. **Atriplex hortensis**. Chenopodiaceæ.

Very rich in sodium and other salts. Used as food and for medicinal purposes by Indians and settlers.

153. **Atropa belladonna** L. Deadly nightshade. Solanaceæ.

This plant thrives well in the United States, where it is grown as an ornamental plant, and experimentally and commercially in several places. The firm of Johnson and Johnson of New Brunswick, N. J., manufacturers of belladonna plasters, have grown belladonna experimentally for four or five years. The experiments are now being continued in California (Castro Valley, near Hayward). (See "Red Cross Notes," edited by F. B. Kilmer; also King's Dispensatory, 18th ed., p. 332.) The plant grows very well in the San Francisco Garden of Medicinal Plants, in Berkeley, California, and at Salinas, California. Belladonna requires quite rich soil, well tilled. Leaves and roots are used, which should not be collected from first-year plants. Collect from plants two or four years old, at the time of flowering. Price of roots and leaves per pound, about 25 cents. English belladonna is much more valuable than German belladonna. All

parts of the plant are poisonous; used as a nerve sedative, diuretic, in catarrhs, in ophthalmology, in the manufacture of plasters and ointments.

Said to be a preventive and cure of scarlatina (homeopaths), checks secretions, dilates pupil (mydriatic), used in asthma, phthisis, to relax sphincter muscles, to relieve strangulated hernia, etc. (See, also, **The Pharmaceutical Era**, June 9, 1904, p. 556, **Pacific Drug-gist**, 1905, and **Pacific Pharmacist**, 1907.) For the comparative value of wild and cultured belladonna, see Proc. A. Ph. A. 30:162. 1882. (E. E. Nelson, *Belladonna Radix*. California College of Pharmacy, 1902. Thesis.)

153. **Aurantium dulcis** varieties. Oranges. Aurantiaceæ.

Extensively cultivated in the State. Other members of the family are cultivated in the State, to say nothing of the remarkable crosses between oranges and related fruits, as the Tangelo, Mandarin, Pomelo, Navel oranges, etc.

154. **Baccharis glutinosa**. Aster-oideæ.

A decoction of the leaves is used as an eyewash by the Coahilla Indians. (Barrows.)

155. **Balsamorhiza deltoidea** Nutt. Balsam root. Compositæ.

Seeds used as food (roasted and ground) by the Klamath Indians of Oregon; likewise the seeds of **B. digittata**.

The **Balsamorhiza** species (Balsam roots) contain a terebinthine principle in the outer root parenchyma which the Indians remove before eating. This resin or turpentine requires further study.

156. **Balsamorhiza sagittata** Nutt. Wild sunflower. Compositæ.

Roots used medicinally by the Piute Indians. Petioles eaten. Fragrant. No doubt contains volatile oil like **B. terebinthacea**. Reported to be poisonous.

(U. S. D.) Kelly, Drug. Circular, 1897.)

157. **Balsamorhiza terebinthaceæ**. Compositæ.

The root has a strong terebinthine odor and is used as a diuretic.

158. **Bamboo**. (See *Arundinaria*, 130.)

159. **Bananas**. (See *Ananas*, 74).

160. **Berberis** species. Barberry. Berberidaceæ.

Three species occur, **B. dictyota**, **B. pinnata** (California barberry) and **B. nervosa** (Mahonia). These, no doubt, have properties not unlike those of **B. vulgaris**. (See J. M. Maisch. *The Berberis Species of the Pacific Coast*. *American Journal of Pharmacy* 50: 374-371. 1878, and Proc. A. Ph. A. 27: 201-206. 1879.)

161. **Berberis aquifolium**. Oregon grape. Berberidaceæ.

Roots are used in treatment of ulcers and sores. The juice of the fruit fermented, with sugar added, makes an excellent wine. California Indians have long used the root decoction as a tonic. The bark is used medicinally. There is still considerable demand for this drug. (Calif. Geol. Survey. Bot. 1:14.) (U. S. Geol. Survey Wheeler's Rep. Bot. 6:41.) (F. E. Farrell, **Berberis Aquifolium**, Oregon Grape Root. Calif. College of Pharmacy, 1901. Thesis.)

162. **Berberis nervosa**. False Oregon grape. Berberidaceæ.

Berries are strongly acid, but are eaten and are said to promote the action of the liver. The bark and root are used in jaundice. **B. repens** has similar properties. (Calif. Geol. Survey Bot. 1:15.) (Contrib. U. S. Natl. Herb. 7: No. III, 348).

163. **Berberis pinnata**. Barberry. Berberidaceæ.

Berries are edible. Stem and root contain a yellow dye. Properties like those of **B. nervosa**.

164. *Beta vulgaris* L. Beet. Chenopodiaceæ.

Escaped from gardens. Sugar beet culture is conducted on an enormous scale in California. (See paper by Geo. W. Shaw. Numerous State agricultural reports on sugar beet culture, etc.)

165. *Betula alba* L. European white birch. Cupuliferæ.

Cultivated. Leaves used in gout, dropsy, rheumatism. Saccharine juice used in kidney and bladder complaints. Bark yields an oil, having the properties of oil of cade. The resinous exudation of young shoots, mixed with soda, is used as a tonic laxative. Inner bark used in intermittent fever. (American Journ. Phar. 1881.)

166. *Betula lenta* L. Cherry. Sweet or black birch. Cupuliferæ.

Cultivated. Ornamental. Used like *B. alba*.

167. *Bidens* species. Spanish needles. Beggars sticks. Compositæ.

The California species require further study. The roots and seeds of *B. bipinnata* are popularly used as an emmenagogue and by the eclectics as an expectorant in laryngeal and bronchial diseases.

168. *Bigelovia groveolens*. Gray. Compositæ.

The Coahilla Indians prepare a tea from the twigs given for coughs and pains in the chest. (Barrows.)

169. *Bigelovia veneta* (H. B. K.) Gray. Bushy goldenrod. "Yerba anti-rheumatica." Compositæ.

Resembles *B. menziesii*. Said to have aphrodisiac properties. Is used in the treatment of rheumatism. It contains a resinous exudation resembling that of *Grindelia robusta*. (U. S. Geog. Survey. Wheeler's Rep. 6:46.) (U. of C. Exp: Sta. Rep. 1895, p. 96; 1896, pp. 64, 67, 70.)

170. *Blumea balsamifera*. D. C. *Blumea camphor*.

Introduced in Southern California. Yields camphor by oxidation with nitric acid.

171. *Boisduvalia densiflora* Wats. Onagraceæ.

Seeds are rich in oil and are relished by Indians as a food.

172. *Boldo*. (See *Peumus*.)

173. *Boletus*. Pore fungi. Boletaceæ.

Eaten as food by Calpella Indians. Poisonous. (Contrib. U. S. Natl. Herb. 7: No. III, 301.)

174. *Brodiaea Lactea* Wats. Liaceæ.

Bulbs used by Indians as food. *B. cappitata* used similarly by other Indians (Indian potato).

New School of Pharmacy

We learn that a School of Pharmacy will be opened at the Montana Agricultural College, Bozeman, Montana, next September.

We congratulate the president and officers of the college, and also the pharmacists of Montana, that this new candidate for the patronage of students in pharmacy is beginning right. It will require high school graduation as a condition of entrance. The founders could give no surer indication of their intention to make it a good college than by demanding of those who would seek its benefits that they prove their fitness for a pharmaceutical education by obtaining first a good foundation in the form of a complete high school course. This shows that they have enough of the student habit and of perseverance in study to profit by their college training. We wish the new school success.

The National Formulary III is a necessity in every retail drug store and pharmaceutical manufacturing establishment. The previous edition is ten years out of date.

BRIEFER ARTICLES, COMMENTS, AND CORRESPONDENCE**THE MARKING OF SOME GOODS
WITH A COST AND SELLING
PRICE**

By S. A. McDonnell.

I can imagine no greater mortification than to place before a customer some not-much-called-for articles which you turn, and turn in vain, to get a glimpse of the selling price. Guessing is not accurate nor convincing. Your customer notices it and fails to be impressed, and your prestige suffers. Now such things as whisk brooms, for instance. Naturally you mark them when you put them on sale, but my experience with them is that no device so far tried is permanent, ink, labels, tags and stickers disappear from them with disagreeable persistency. Recently I have tried a dab of La Page's glue over the shoulder part of the groom corn whisk upon which you place a sticker previously marked with cost and selling price. This, I find stays on, and as a necessity (like virtue) brings its own reward.

Combs are another great nuisance to sell on account of the disappearance of the white, red or black ink used to mark them. Customers delight, perhaps unconsciously, to rub and rub the mark with their thumbs, for some unknown reason, until it finally disappears. My present impression is to get narrow tape or glazed silk ribbon and wrap just once across the center of the comb, the edge of the tape or ribbon just overlapping enough to hold with a dab of La Page's glue, then mark on same what is desired.

N. B.—I have not tried this plan yet, but will on the next lot of combs I get in. I feel that it is the proper thing, and will save in satisfaction any time

given for its accomplishment. In getting the tape or ribbon, get some starched material, so that the ink won't run when it is written upon.

TUBERCULOSIS

By F. E. Stewart, Ph. G. M. D.

In an editorial note published in the November number of the **Pacific Pharmacist**, on page 331, it is stated that "Medical authorities are still divided as to whether cattle tuberculosis can be transmitted to human beings." Reference to a paper entitled "The Etiology of Tuberculosis," by Mazyck P. Ravenel, M. D., professor of bacteriology in the University of Wisconsin, which appears in the **American Journal of the Medical Sciences**, October, 1907, proves that "Milk from tuberculosis cows is the sower of infection in many cases. Our present knowledge does not enable us to state the exact proportion of cases of tuberculosis due to this cause, but it is probably considerable."

This author gives the results of experiments conducted by many competent observers in all parts of the world, on which this conclusion is founded.

Evidence is also given by the author, based on his own experiments, and the experiments of many other experts, which seems to conclusively prove that the alimentary tract is a frequent portal of entry for the tubercle bacillus; that the tubercle bacillus is able to pass through the intact mucous membrane of the alimentary tract without producing a lesion at the point of entrance; that the bacilli pass with the chyle through the lacteals and thoracic duct into the blood, which

conveys them to the lungs, where they are retained largely by the filtering action of the tissues, and that infection through the alimentary tract is especially frequent in children.

Evidence shows "that tuberculosis arises in the vast majority of cases, both in childhood and adult life, from the inspiration or ingestion of tubercle bacilli expectorated by a consumptive; that the principal source of infection is the drying of sputum and the contamination of dwellings, and that the primary lesion is in the lymph-nodes, either thoracic or abdominal, the lungs being secondarily infected." (Francim.)

It will, therefore, be seen that tuberculosis is not primarily a disease of the lungs, as most people suppose. Moreover, tuberculosis is one of the most curable of diseases if taken in the earlier stages, before other disease germs get in their deadly work. In fact, some of the leading authorities go so far as to say that nearly everybody has or has had tuberculosis, that nobody dies of tuberculosis; and that mixed infection is the cause of death in almost all, if not all, deaths from phthisis or consumption.

While it is true that the "great white plague" is one of the most destructive diseases afflicting humanity, yet modern science has demonstrated that it is easily prevented, readily curable in its initial stage, and there is no excuse except ignorance and carelessness for its widespread prevalence.

WHOLESOME MILK

The milk supply continues to receive attention throughout the country. In the Journal of the Am. Med. Association for September 28, 1907, there are some very valuable papers with discussions. Dr. George W. Goler says, among other things: "If milk is so

important a food for the baby, are we not justified in protecting it from contamination? Is not the State warranted in adopting the most stringent rules and enforcing them to the extent of the law? In its extremity is there anything that the State ought not to do, even to owning and controlling the milk supply, should such a measure be necessary, to protect the food of the babies? Unless we do protect our children's food, we may some time find that, instead of strong men, we have a race of Hooligans." Some very stringent suggestions as to milk inspection are given. It may be stated that to inspect the milk from a sick, filthy cow, milked by a dirty milker with filthy, fissured, and scabby hands, is of little avail. Dairymen should be taught to produce sanitary milk, from healthy animals, kept under sanitary conditions. But the dairyman cannot know what that means unless he is taught.

Until some more efficient means of supplying wholesome natural milk to consumers can be put into operation, we would urge systematic pasteurization.

Dr. M. J. Rosenau, Director of the Hygienic Laboratory of the U. S. M. Hospital Service, sums up pasteurization as follows:

Advantages.—The advantage of pasteurization is that it is a cheap and effective means of preventing the transmission of infectious diseases such as tuberculosis, typhoid fever, diphtheria, scarlet fever, etc., commonly spread by milk.

Disadvantages.—1. Pasteurization promotes carelessness on the farm and dairy, etc. (This may be controlled by proper regulations, inspections and laboratory examinations.)

2. Pasteurization renders milk less digestible. (While it is generally conceded that boiled milk commonly induces constipation, the majority of the evidence plainly indicates that pasteurization has little, if any, effect on the digestibility of the milk.)

3. Pasteurized milk favors the production of rickets and scurvy. (There is no proof to this effect and authorities agree that the danger is slight; and, further, that it may readily be obviated.)

4. By destroying the non-spore-bearing bacteria, pasteurization sometimes allows toxic organisms to grow and produce serious poisons in the milk. (On the other hand, these same poisons are more frequently produced in milk that has not been pasteurized, and this danger may be obviated in pasteurized milk by cooling it quickly, keeping it cold and shortening the time for distribution.)

5. Pasteurization is inefficient as a preservative; the milk keeps only 12 to 24 hours longer than otherwise. (This is really no disadvantage, for the quicker bad milk sours, the better.)

6. Pasteurization injures the taste of the milk. (This is not so, if properly done.)

7. Pasteurization increases the cost of the milk. (True, but it is the cheapest safeguard, and the expense of pasteurization is offset by the keeping quality of the milk.)

Methods.—The milk must be heated to a temperature of 65 C. (149 F.) for 20 minutes, or 70 C. (158 F.) for 10 minutes, as soon as practicable after the milking, in enclosed vessels, preferably the final containers. After pasteurization, the milk must be promptly cooled, kept cold and distributed with promptness.

The advantages so far outweigh the disadvantages that I unhesitatingly recommend compulsory pasteurization of all milk not certified under Class 1 and Class 2 of Dr. Melvin's classification.

THE VALUE OF TRAINING

Illustrated in the Life of a Famous Chemist.

In what does personal worth consist? This perplexing question is constantly being discussed, which is evidence in itself that it has never been satisfactorily answered. The reason why this question is continually being brought forward is that the standard of worth is so very variable. But be this as it may, the great majority of intelligent people unhesitatingly agree that

the man who has the power to give stimulus to the world's progress is a man of worth.

In the life of the famous chemist, Dmitri Ivanovitch Mendelejeff, we have an illustrious example of the man of real worth, the man of positive power in contributing to the world's progress.

Mendelejeff was born in 1834. He was last but not least of a family of seventeen children. He had the good fortune to be born of educated parents, who doubtless counseled him wisely, even though unable to supply him with all his daily needs.

After finishing the Gymnasium, he went to St. Petersburg to study chemistry. Here he soon was recognized as being a promising student. He met famous teachers who were sources of inspiration to him. While here he wrote his first paper on Isomorphism. After leaving the university, he spent some years as a teacher in the Gymnasium in Odessa and the Crimea. During this time and for many years following he received important appointments from the government.

The center of his interest was in physical chemistry. He had that rare ability, sometimes called genius, to take the fragmentary facts, scattered far and wide, and put them together. His generalization had to do with genuine facts and not idle fancies. In this respect he greatly resembles Darwin, whose wonderful powers in observation of plant and animal life led him to formulate the theory of evolution.

The generalization which will ever keep his memory dear to the chemist is embodied in the "Law of the Periodicity of the Elements," which was published in his "Principles of Chemistry" in 1869. So well known now is this law to every student of chemistry that it is not necessary to

show how applicable it is to the elements. So certain was he of the applicability of this law that he predicted that atomic weights of those elements which did not agree with his table would be found to be wrong. He also predicted that the gaps in the table would be filled by elements not yet discovered. He even went so far as to give the properties in a general way of elements not yet discovered. These visions into the future came true, and fortunately the grand old gentleman lived to enjoy some of the fruits of his toil. The discovery of this great principle gave an impetus to the study of chemistry, possibly such as never before received.

But this was not all he did. He wrote many important papers upon various subjects connected with chemistry. He made a profound impression upon students of chemistry. He was easily the foremost chemist in Russia for many years.

The example before us is an illustrious one in that it amply demonstrates the value of training. This man never could have arrayed and marshalled facts as the general does his soldiers were it not for his superior training. His life work was a satisfaction to him, and he left the world a greater legacy than gold.

For the successful completion of life's work there is nothing of greater value than a good scholastic training. It is like a bank account, no load to carry, and it often serves a good purpose in time of need.

This cannot be too strongly emphasized to the rising generation. Many in middle life for the first time realize the possibilities and opportunities before them, but find themselves helpless.

THE PACIFIC PHARMACIST
\$1.50 a year Subscribe yourself and get your
friends to do the same.

ALEXANDER MACTIER PIRRIE

A Martyr to Science

A career of great promise has been cut short by the untimely death of Mr. A. Mactier Pirrie.

The son of the late Mr. Alexander Pirrie, C. E., he was born on October 2, 1882. He obtained his B. Sc. with honors in anthropology at Edinburgh University in 1904, and qualified as M. B., Ch.B., in 1906. He obtained the Carnegie Research Fellowship in anthropology and was appointed anthropologist to the Wellcome Research Laboratories at the Gordon Memorial College, Khartoum. He went out to the Sudan in the autumn of 1906.

Under the direction of Dr. Andrew Balfour, the Director of the Laboratories, Dr. Pirrie made his first expedition up the Nile to the southern limits of the Sudan, and penetrated to remote parts of the Bahr-el-Ghazal. His second expedition took him to the borders of Abyssinia. On both occasions he passed through some of the most pestilential regions of Africa in connection with certain anthropological and physiological researches, appertaining to tropical diseases upon which the laboratories are engaged.

Unfortunately he contracted tropical fever (kala-azar) and was so prostrated as to be compelled to return to England, leaving Khartoum on June 17th last.

He rallied from the effects of the fever from time to time, but was compelled to enter Chalmers' Hospital, Edinburgh, in October. His death took place on November 12th.

He was interred at the Dean Cemetery, Edinburgh, on November 15th. The Gordon Memorial College, Khartoum, Sir William Turner, Principal and Vice-Chancellor of the University, Mr. Wellcome and others were repre-

sented and sent wreaths. A resolution of sympathy has been conveyed to the relatives from the trustees of the Gordon Memorial College, and other expressions of sympathy have been received from the Liverpool School of Tropical Medicine, etc.

It is of interest to note that the first case of kala-azar found in Africa, except a case in Tunis, referred to by Laveran, was reported by Dr. Sheffield Neave, pathologist to the Wellcome Research Laboratories, Khartoum. Dr. Neave found the Leishman-Donovan body, the parasite of kala-azar, in the splenic blood of a patient in the Omdurman Civil Hospital. The discovery is noted by the Director in the Second Report of the Laboratories.

Dr. Pirrie presented a paper on his African expeditions at the last meeting of the British Association for the Advancement of Science, but was prevented from being present on account of his illness. He brought back a most valuable collection of objects of scientific interest.

At intervals during his illness he was engaged on his report to the Carnegie Institute and the Wellcome Research Laboratories, Khartoum, for which institutions he acted jointly in the important work he carried out in the Sudan.

SYLLABUS COMMITTEE DEFINITIONS

An amendment to the Public Health Law of the State of New York in 1904 provided that no person should become a licensed pharmacist in the State until he had presented to the Board a diploma of a pharmacy school, college or department of a university maintaining a two-year course in pharmacy and registered by the Regents of the University of the State of New York as legally in-

corporated and maintaining a proper pharmacy standard, provided such school should require as a condition for entrance fifteen Regents' counts or the educational equivalent. This "prerequisite law" established a general preliminary educational requirement for admission to the pharmacy schools of the State and at the same time required attendance on a pharmacy school for admission to the licensing examination. This act led to a series of conferences between the State Board, the schools of pharmacy and the Education Department, which resulted in the adoption of formal rules and regulations by the Regents of the University of the State of New York.

In the development of the work it became apparent that an outline and syllabus for the guidance of the schools and the State Board would be helpful, and a committee was created to carry forward the work.

The following definitions are submitted for criticism by the committee:

Tentative Definitions for the Syllabus.

"In words as fashions the same rule will hold
Alike fantastic if too new or old.
Be not the first by whom the new are tried,
Nor yet the last to lay the old aside."

College and School. The term College includes universities and other institutions of higher instruction authorized to confer degrees in arts and sciences. Professional and technical institutions are uniformly called schools whatever their corporate title; hence the word "school" in this work will refer uniformly to colleges or schools of pharmacy or departments of universities.

Pharmacology. The sum of scientific knowledge concerning drugs and medicines; their nature, preparation, administration and effect; including pharmacognosy, pharmacy, pharmacodynamics and therapy dynamics.

Drugs. All substances used as medi-

cines or in the preparation of medicines. Drugs that have not been changed by manufacture except by dessication or comminution are crude drugs.

Medicine. A drug or preparation of drugs possessing or reputed to possess curative or remedial properties.

Materia Medica treats of the physical, physiological and therapeutical properties of the materials used for curative and remedial purposes.

Microscopy. The art of examining objects with a microscope.

Physiology treats of the organic functions in a state of health.

Botany treats of the structure, growth and classification of plants.

Toxicology treats of poisons, their recognition, effects and antidotes.

Posology treats of the doses of medicines.

Pharmaco Dynamics treats of the actions of medicines on healthy organs.

Therapy Dynamics treats of the actions of medicines on diseased organs.

Pharmacognosy treats of the identification and selection of drugs.

Histologic Pharmacognosy treats of the identification and selection of drugs by the use of the microscope.

Commercial Pharmacognosy treats of the trade and commerce in drugs.

Chemistry. The science of the composition of material things and the art of determining such composition.

Physics. The science of the properties and forces of matter.

General Chemistry treats of the theory and principles of chemistry.

Pharmaceutical Chemistry treats of the chemistry of remedial and curative substances.

Manufacturing Chemistry. The production of chemical substances.

Inorganic Chemistry treats of those substances that do not contain carbon in a combustible form.

Organic Chemistry treats of compounds containing carbon in a combustible form.

Analytical Chemistry. The art of determining the chemical composition of substances.

Qualitative Chemistry determines the constituents of a substance.

Quantitative Chemistry determines the amounts of the constituents of a substance.

Assaying determines the amounts of the valuable constituents of substances.

Pharmacy. The science and art of preparing, preserving, compounding and dispensing medicines.

Pharmaceutical Latin. The Latin pertaining to the science and art of pharmacy.

Pharmaceutical Arithmetic. The arithmetic pertaining to the science and art of pharmacy.

Theory of Pharmacy. The exposition of the principles on which pharmaceutical operations are based.

Practice of Pharmacy. Systematic exercises in pharmaceutical operations.

Dispensing Pharmacy. The extemporaneous preparation or compounding of medicines.

Manufacturing Pharmacy. The preparation of pharmaceutical substances.

Pharmaceutical Jurisprudence. The relations of law and pharmacy to each other.

Commercial Pharmacy. Trade or commerce in pharmaceutical products, including business practices.

PUBLIC HEALTH DEFENCE LEAGUE

This organization, which had its inception in New York, has assumed national proportions. Its membership now numbers 2,000 of the leading men of the United States, with a representation in foreign countries. Its efforts

are in direct harmony with the Pure Food and Drugs Act and similar State acts, as is clearly set forth in the statement of the objects of the league, which are here quoted:

1. To combat all forms of quackery and charlatanism.

2. To prevent food adulteration and drug substitution.

3. To prevent the sale of narcotics and alcohol disguised as patent medicines.

4. To prevent the circulation of indecent medical advertisements.

5. To advocate the establishment of a National Department of Health.

6. To carry on an educational campaign for the spreading of accurate knowledge concerning the public health and the inculcating of higher health ideals.

7. To protect the public health by assisting the constituted authorities in the enforcement of existing laws, and by urging the enactment of uniform legislation in all the States on matters relating thereto.

8. To co-operate with other societies interested in any public health problem, and ultimately to effect a plan of union or co-operation of all organizations interested in the public health.

There appears to be a general awakening throughout the United States in the interests of good health, and we can but hopefully look for good results from these combined efforts.

The national headquarters of the Public Health Defence League are located in New York City in the United Charities Building, 105 East Twenty-second Street.

German Chemical Trade Increasing

Consular reports from Germany indicate that the chemical markets of that country were prosperous in 1906. Conformably to the extraordinary activity during the last two years the profits, as indicated in the annual statements of the factories, show an increase. A statement of the business in 1905 of 142 stock companies, with a capital of 460,000,000 marks (\$109,480,000), indicates that 69,500,000

marks (\$16,541,000) were paid as dividends and bond and mortgage interest. This means 10.12 per cent, compared with 9.52 per cent during the preceding year. As a matter of course, the better results are not equally shared by all lines. The best was the tar color industry, the average proceeds of which rose from 11.68 to 13.45 per cent.

Less satisfactory was the profit in the industry of chemical-pharmaceutical preparations, which fell off from 9.67 to 9.35 per cent. Despite the greater recognition enjoyed abroad more and more by the German chemical and pharmaceutical products, and in spite of the fact that sales increase each year, strong competition, unfavorable customs conditions, and the higher cost of raw material and workmen's wages prevent the manufacturers from securing corresponding better selling prices.—Paint, Oil and Drug Review.

REGULATIONS FOR SALE OF VIRUSES AMENDED

Washington, D. C., Nov. 4.—The Treasury Department has issued the following amendment to the regulations promulgated Feb. 21, 1903, in accordance with the act of Congress approved July 1, 1902, entitled "An act to regulate the sale of viruses, serums, toxins and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes":

"The immunity unit for measuring the strength of tetanus anti-toxin shall be ten times the least quantity of antitetanic serum necessary to save the life of a 350-gram guinea pig for ninety-six hours against the official test dose of a standard toxin furnished by the hygienic laboratory of the Public Health and Marine Hospital Service." —Phar. Era.

The Pharmacopœia and Medical Schools

The following circular is self-explanatory:
Baltimore, October, 1907.

• Dear Sir: At the recent annual meeting of the American Pharmaceutical Association the undersigned was directed to send you a copy of the following resolutions:

Whereas, The American Medical Association, the American Pharmaceutical Association and the National Association of Retail Druggists, together with many State and local organizations and journals in both professions have been for some years endeavoring to bring about a return to the practice of medicine based on the pharmacopœia, and

Whereas, The medical colleges are represented on the Committee of Revision of the U. S. Pharmacopœia, and

Whereas, It is manifest to the thoughtful men both in medicine and pharmacy that a very large number of medical men might be better informed regarding the Pharmacopœia as a book of reference and standards; be it therefore

Resolved, That it is the sense of the American Pharmaceutical Association in convention assembled, that a great advance in the ethical practice of medicine and pharmacy will be made when the medical colleges make the Pharmacopœia a prescribed text-book or book of reference and require a familiarity with it in their examinations.

Resolved, That we request the governing authorities of all medical colleges in the United States to put into force such a ruling in their respective institutions as will insure in future classes a well-grounded knowledge of materia medica and Pharmacognosy, as set forth in the Pharmacopœia.

Resolved, That the General Secretary be directed to transmit a copy of these resolutions to each medical college in the United States and to the medical and pharmaceutical press.

Yours very truly,

CHAS. CASPARI, Jr.,
General Secretary.

SCIENTIFIC NOTES

New Alcohol Plant

A new industry which, if successful, may have an important bearing on the development of the Northwest, is to be established at Steptoe, the new townsite on the Spokane and Inland. Jacob Hertzka of Nashville, Tenn., has secured a site from the Railway Land and Improvement Company on which he will build a denatured alcohol plant. Mr. Hertzka is an experienced denatured alcohol distiller, and he believes that the condition in the Northwest offers a good opportunity for the successful manufacture of the product here.

To establish and equip the plant a company with a capital of \$25,000 is being organized, most of the stock of which will be held by the organizer. The plant will have a capacity of 400 gallons per day, which means the consumption of about six tons daily of potatoes, second-rate grain, fruits and such vegetables as will ferment. The plant will not use the products that are best for sale, but will furnish a market for all such vegetables and fruits as now are going to waste. Slight decay in fruit or vegetables does not impair their value for distilling into alcohol, and with a denatured

alcohol plant the farmers and commission houses need have practically no waste.

Impervious Corks

Helbing has patented a method whereby a cork could be made perfectly impervious, although defective at the start. This object has been sought in various ways—e. g., by coating with paraffin, by covering with a solution of rubber, etc. The new method is simply to soak the cork in a solution of casein and then to harden in a formaldehyde solution. By this method the cork retains its elasticity, becomes impervious to fluids, and communicates no taste to liquids.—Merck's Report.

MOTH BALL ODOR DANGEROUS

Paris, Nov. 30.—Naphthaline has just been attacked in the French Academy of Medicine by Drs. Gaube and Tribot. Naphthaline is very much

used here in the form of small moth balls to preserve furs and other articles of clothing from moths, but these doctors state that the substance is not only useless as a preservative against insects, but is highly injurious to human beings. It gives off in a slow form a carbon which poisons the blood corpuscles. The vapor from naphthaline balls has produced several cases of asphyxia. Naphthaline is all the more dangerous because its effects are insidious and imperceptible until it is too late.—S. F. Examiner.

COD LIVER OIL

The medicinal value of cod liver oils was known centuries ago among the Laplanders in Northern Europe, the descendants of the Norsemen in Iceland and the Eskimos in Alaska. The use of cod liver oil gradually extended in Europe during the eighteenth century, becoming a popular home remedy among many seacoast communities and used empirically by physicians. Percival and Barsley in 1782 recommended its use in cases of gout and chronic rheumatism. In 1841 I. Hughes Bennett of Edinburgh published a pamphlet on its medicinal qualities, strongly recommending it in several cases. From that time cod liver oil has held a prominent place in the confidence of physicians in England and America, and it is now regarded as a remedy of the highest value in diseases which are marked by malnutrition; pulmonary tuberculosis furnishing the most frequent occasion for its employment.

Medicinal cod liver oil is prepared chiefly on the coast of Norway, and to a limited extent in Newfoundland, United States and Japan.

Owing to the favorable conditions under which the codfisheries are there prosecuted, Norway ranks first among

the countries producing steam-refined medicinal cod liver oil. Its fishing grounds are so near the coast that the codfish are landed in quantities within a few hours after capture, and furthermore the temperature, during the fishing season being low, tends to retard the decomposition of the livers before they are steamed. In no other country are the conditions so favorable for producing steam-refined medicinal cod liver oil.

In the codfishery around the Lofoten Island, in Norway, the normal cod livers are of a cream color, and their size averages about ten inches in length, of weight somewhat over half a pound each, though once a codfish was caught in Lofoten giving a cod liver 40 inches long of 11 pounds weight. Cod liver oil extracted from perfectly fresh and selected cod livers is of light color and almost odorless, and owing to its extensive use in medicine, is known as steam-refined medicinal cod liver oil.

BLACK LETTERS BREAK GLASS

The hazard of black paint on plate glass is, it appears, by no means inconsiderable. Signs painted on plate glass done in solid black paint, are in point of fact, extra hazardous, as plate glass insurance companies have discovered to their cost. The practice of painting signs of this kind seems innocent enough, but the experience of conservative casualty companies fully justifies them in refusing to write such windows. The explanation of the hazard under consideration is to be looked for in the property of a black surface to absorb the sun's rays, by means of which, according to a writer in *Rough Notes*, an unequal expansion is produced throughout the plate and under the influence of a sudden gust of cold air or any other sudden change in tem-

perature, a strain is developed which shatters the plate glass bearing the black paint. All black-painted signs on plate glass, no matter with what exposure, must be considered as hazardous risks.—Practical Druggist.

DR. ECCLES ON PRESERVATIVES

Dr. Robert G. Eccles of Brooklyn, in an address before the American Meat Packers' Association recently, declared that "America's hysteria over the use of preservatives in meat would vanish if the people were only as familiar with boric acid, benzoic acid and salicylic acid as they are with the use of vinegar and smoke. "Should any one try to get a law passed," he said, "forbidding the use of vinegar or smoke in the curing of food, he would be laughed to scorn, and yet no chemist, educated physician or physiologist can deny the fact that, dose for dose, the active ingredients of smoke and vinegar are much more dangerous than the acids named. Vinegar is eight times more potent than any of the preservatives which have come under the ban.

"It is really a remarkable fact that whenever a city or State has sought to suppress the use of preservatives within its borders, deaths from intestinal diseases have gone up with a leap. When Brooklyn tried it her death rate rose, while that of New York, with only a river between, slightly declined."

Tuberculosis

According to **American Medicine**, direct sunlight is bad for tuberculous patients. Cold is said to be beneficial. In hot, sunny countries opaque clothing should be worn.

COTTON OIL EXPORTS

Government records show that our cotton oil exports to Austria-Hungary fell off nearly 100,000 barrels for the twelve months ending with June last.

NEW BARK FOR TANNIN

At a meeting of the Royal Society at Sydney, Australia, Mr. H. G. Smith, assistant of the Sydney Technological Museum, referred to the discovery of a new glucoside in the exudation of the eucalyptus, for which he proposed the name of "Emphloin," because it occurs principally in the bark of certain species. This substance has long been looked upon as a gum. Professor Weisner, of Vienna, announced it as such in 1871, an opinion supported by others later; but it is now shown to consist of a tannin in combination with a sugar, and as scientific investigation has shown gum to be absent in the eucalyptus, the term gum, as applied to these in Australia, is a misnomer. These so-called gums are astringent exudations, and vary much in the different species. Several distinct tannins have been detected in these kinos during an investigation of the product of nearly 100 species of eucalyptus.—Paint and Drug Review.

A FOREIGN SULPHUR TRUST

While there is so much discussion over trusts in this country, it is rather interesting to note that we are threatened with an invasion from a foreign trust. It is the sulphur combine of Italy. The sulphur monopoly there is very thoroughly organized and it has been working through the importing agents in this country to entirely crush the competition of the native American firms. It is bad enough to be robbed by a trust of home origin, but when it comes to being overridden by a foreign trust, it is a little too much. The sulphur trust has tried to make contracts with American consumers in virtue of which they would not deal at all with American firms. There is a clause in the Sherman Anti-Trust law that provides for confiscation and disbarment from the country for any foreign trust

that tries this game. We do not happen to possess a sulphur trust, so that in shutting out the foreigner we will not be doing anything to foster home monopoly. It would seem a very good time to invoke the operation of this clause of the Sherman law that has never before been put into operation.—Cottonwood Enterprise.

SUGAR VERSUS ALCOHOL

Dr. Abbott, the Health Commissioner of Pennsylvania, has enounced a theory—or, as he prefers to call it, a "suspicion"—that the appetite for alcohol and the appetite for sugar are fundamentally the same. Chemically the two products are nearly identical, and sugar is used in making all alcohol. Physiologically, their action is somewhat similar, since alcohol in small quantities is quickly absorbed and becomes an energy producer. But it is in larger quantities that alcohol produces dire effects, while overdoses of sugar seldom do much harm. It is noted that men use more candy and less alcohol nowadays than they used to. Sugar instead of brandy is now given to men about to go into battle or a football game. Arctic explorers always take supplies of sweet chocolate with them on their expeditions.

The Independent, in commenting on this theory of consanguinity of the alcohol and the sugar habits, points out the benefits that would flow from a substitution of the harmless for the harmful habit. Instead of sending drunkards to be gold cured, it says, we will have them **sugar cured**. At any rate, sugar is the typical modern food—concentrated and quick acting. The old-time prejudices against it, that it destroyed the teeth, undermined the health of children, and was an effeminate luxury, are passing away. As a substitute for alcohol, its future may be

yet more wonderful than its present.—Paint and Drug Review.

Iron Sulphate Fatal to Mustard.

An article appeared in the Technical World Magazine for April on "Farmer Fears Weeds No Longer." The article is illustrated with colored plates and tells the story of the experiments for the eradication not only of mustard but other pests in the weed line. After a number of years of investigation, a chemical has been found in iron sulphate which will kill off the weeds and leave the cereals uninjured. It has been tested and found successful on oats, barley, wheat and speltz. "The time for making the test is of the utmost importance. The condition of the weather is a factor to be considered. The day must be bright and sunshiny. There must be no wind and the dew should have evaporated. If rain follows the spraying within a few hours the solution will be weakened and the mustard will not be successfully exterminated. The way it is figured out it would cost less than one dollar per acre to spray the grain. About two pounds of iron sulphate per gallon of water is used."

Disinfectant and Germicidal Effects of Oil of Cloves

It is well known that clove oil is very popular as an addition to tooth-powders and mouth washes, owing to its disinfecting properties. J. C. Webster has now found that the oil, on account of its pronounced bactericidal action, also constitutes an excellent disinfectant for the hands, which is distinctly preferable to mercuric dichloride. After washing and brushing the hands for about five minutes with warm water and soap, they are dried with a sterilized towel and washed for one minute with alcohol. The hands are then rubbed for four or five minutes

with clove oil, which is finally washed off with alcohol. Bacterial cultures from hand scrapings on gelose gave in 45 cases, after applying clove oil, only 0.04 colonies, whilst by treatment with water and soap only, under otherwise similar conditions, 450 colonies were formed, and disinfection with sublimate (1:2000) still gave a mean of 21 colonies. Silk threads infected with pathogenic germs were absolutely sterile after thirty minutes' immersion in clove oil. Catgut ligatures immersed for about eight days in clove oil were, after draining, soaking in 95 per cent alcohol for six to eight hours and drying, more thoroughly sterilized than by any other method. Webster characterizes the results of the disinfection with clove oil as so satisfactory that all other methods were abandoned.

Sleeping Sickness.

This disease peculiar to the West Coast of Africa is said to have caused the death of 200,000 persons within four years. The most marked symptoms are extreme lassitude and sleepiness. There is muscular trembling, fainting, emaciation and finally an almost constant half-sleeping state, general malaise and death. According to Dr. R. Koch the specific cause is a ciliate protozoon (Trypanosome) carried by a fly (*Glossina palpalis*), thus resembling malaria. Koch and his assistants have discovered a remedy, known as atoxyl (meta-arsenious anilid), which causes the death of the trypanosome organism. The disease is not spontaneously curable—Deutsch-Am. Apoth-Ztg.

To Test Smelter Fumes

C. H. McCharles, an alumnus of the University of California has been employed by the Selby Smelting Company to determine accurately how

much truth there is in the accusation of the surrounding community that the fumes cause great injury to plant and animal life. The company has had damage suits during the year, and this is responsible for the scientific investigation.

CALIFORNIA CAMPHOR

In view of the Japanese camphor control and also of the Japanese war cloud (visible to certain newspaper editors only), would it not be wise to grow camphor in California? It thrives well along the entire coast regions of the State and in places it occurs spontaneously. It is rich in camphor of first quality. Camphor is a necessity in the manufacture of smokeless powder.

SHORTAGE OF CASCARA BARK

The season's harvest of cascara bark is ended. Washington (Lewis and Chehalis) furnishes about twenty carloads. Oregon shipped seven carloads. This is a very small harvest as compared with that of previous years. In 1904 Oregon shipped 200 carloads. The market is now very strong. English cable advices state that ten tons were sold at auction in London at 12½ cents per pound.

An Unfair Advantage

If an editor makes a mistake he has to apologize for it, but if a doctor makes a mistake he buries it. If an editor makes one there is a law suit, swearing and the smell of sulphur, but if a doctor makes one there is a funeral, cut flowers and a smell of varnish.

A doctor can use a word a yard long without knowing what it means, but if an editor uses it he has to spell it. Any old college can make a doctor. You can't make an editor; he has to be born.—Retail Druggist.

Formulas

The following is a very dangerous prescription, often prescribed by doctors without giving a thought as to what the result might be if the bottle was not "well shaken before taken":

Potassii Iodidi	2 dr.
Strychninæ Sulph.	1 gr.
Aquae, ad	6 oz.

Mix. Sig.—A teaspoonful three times a day.

The dose of strychnine is not too large, but in the presence of potassium iodide it is precipitated as insoluble iodide of strychnine. If aromatic elixir or syrup was used as a vehicle, the danger of the precipitate falling to the bottom would be lessened to a great extent, as the heavy liquid would hold it in suspension. However, it would be wise for the doctor not to prescribe strychnine and iodide in the same mixture.

Blue Fire

Sulphur	1 oz.
Burnt alum	1 "
Carbonate of copper	1 "
Chlorate of potassium	4 "
Shellac	1 "

Powder the drugs separately and mix them through a sieve; the shellac should not be quite as fine as the other ingredients.

Red Fire

Nitrate of strontium	6 oz.
Chlorate of potassium	2 "
Sulphur	1 "
Shellac	1 "

Powder the drugs separately and mix through a sieve, the shellac not as fine as the other ingredients. If for indoor tableaux, the sulphur may be replaced by a larger quantity of chlorate of potassium and shellac, thus avoiding the irritating fumes of the sulphur. After mixing, try a small

quantity of the fire, and if the fire burns too slowly, add more chlorate of potassium, if too rapidly, less chlorate.

White Fire

Nitrate of potassium	8 oz.
Charcoal	¼ "
Sulphur	1 "
Shellac	1 "

Powder separately and mix through a sieve.

Cough Mixture

Codeine sulphate	2 gr.
Tincture of blood root	2 dr.
Tincture of belladonna	1 dr.
Syrup of white pine (without morphine)	
Syrup wild cherry aa	2 oz.

Mix. A teaspoonful every two hours.

Cough Mixture

(For children)

Syrup of ipecac	½ oz.
Brown mixture	1 "
Syrup of Tolu	1½ "
Syrup of acacia	1 "

Mix. Give one-half to a teaspoonful every two hours.

A Dog's Life

A Dutchman, addressing his dog, said: "You vas only a dog, but I wish I vas you; when you go mit your bed in, you shust turn round dree dimes and lay down; ven I go mit the bed in, I hav to lock up der blace yet, and wind up the clock and put the cat out and ondress myself yet and my baby vakes up and cries and I have to walk him mid de house round yet, den may be, ven I get myself to bed, it is time to get up again. Ven you get up, you shust stretch yourself, scratch your neck a leedle and you vas up. I have to light de fire, put on de kiddie, scrap some mit my wife already and get myself breakfast yet. You play around all day and haf plenty of fun. I have to work all day and have plenty drubble. Ven you die you vas dead; ven I die maybe I haf to go to hell yet."—Northwestern Druggist.

College News

WOMEN'S PHARMACEUTICAL ASSOCIATION

The Women's Pharmaceutical Association will meet Friday evening, December 27th, at the California College of Pharmacy, at 8 o'clock sharp. Miss Merriam will present a paper. All members are requested to be present.

CLARISSA M. ROEHR,
President.

PROFESSOR J. H. FLINT WEDS A FORMER PUPIL

Professor J. H. Flint, Ph. G., Dean of the Department of Pharmacy of the College of Physicians and Surgeons of San Francisco and Assistant Editor of the *Pacific Pharmacist*, was married on November 23d to Miss Emily C. Salter, a talented pharmacist, daughter of John W. Salter, who has been in the drug business for many years at Mission and Twenty-second Streets. The wedding took place at the Key Route Inn, Oakland, and was attended by a number of relatives of the bride and other friends of the contracting parties.

After the wedding a collation was served. Professor Flint and Mrs. Flint went to Del Monte on their wedding trip. We extend to the bride and the groom our congratulations.

PHI CHI NOTES

The following were recently initiated into Phi Chi:

E. E. Bourne,
R. J. Chatten,
A. C. Lescher,
R. R. Lorentz, Jr.,
D. W. Ostrom.

A large number of Alumni were present.

ORIGIN OF THE NAME SEQUOIA

Few people outside of the Pacific Coast States know how the wonderful redwood trees, now limited to a few small groves in California, came by their name Sequoia.

There was an Indian of the Cherokee tribe named Sequo Yah, who all by himself, without aid from any one, invented an alphabet, and taught it to his tribe by writing it upon leaves. This alphabet came into general use among the Cherokees before the white man had any knowledge of it. In 1828 a periodical was even published in it by the missionaries. Sequo Yah was banished from his home in Alabama, with the rest of the tribe, and settled in New Mexico, where he died in 1843.

The naming of the big trees for him came about in this manner: When Endlicher was preparing his synopsis of the cone-bearing trees in 1846, and had established a number of new genera, Dr. Jacob Eschudi, then living with Endlicher, brought before his notice this remarkable Indian, and asked him to dedicate this red-wooded tree to the memory of a unique literary genius so conspicuous among the red men of America. It seemed fitting that the redwood should be named for the red man and Endlicher consented to do so and only endeavored to make the name pronounceable by changing it from Sequo Yah to Sequoia. This is how the big trees received their name.

The Sequoias, now represented by two species and confined to California, were, ages ago, distributed over all of Europe, Asia and America, from 43 degrees to 78 degrees north latitude. Scientists tell us the type is of ancient and presumably distinguished family since its first representative is found in the "Urgonian of the Cretaceous age." Ten species have so far been discovered in the Cretaceous, while there are fourteen well-marked species belonging to the Tertiary.

The Massachusetts College of Pharmacy, Boston, now has the largest freshman class in its history, the number just exceeding 100.

FOOD INSPECTION DECISIONS

(F. I. D. 78.)

THE USE OF LABELS AFTER OCTOBER 1, 1907.

When the rules and regulations for the enforcement of the food and drugs act were issued by the three Secretaries on October 16, 1906, one of the regulations, 17 (i), provided that any labels printed and on hand that day which did not contain a misstatement as to the character of contents, but which were not in strict compliance with other requirements of the Regulations, might be issued without fear of prosecution until October 1, 1907.

Recently the National Wholesale Grocers' Association, and individual grocers, wholesalers, and jobbers throughout the United States, requested the Board of Food and Drug Inspection to recommend to the three Secretaries the extension of the privilege until October 1, 1908.

After a careful consideration of the matter the Board has unanimously decided to refuse to recommend such an extension. It is the opinion of the members of the Board that sufficient time has elapsed for manufacturers, jobbers, and wholesalers to adjust their business affairs to the terms of the law and of the regulations.

It is apparent from the letters received by the Board, that the general impression exists that the use of corrected labels will not be permitted after October 1, 1907. This is an erroneous impression, and is evidently gathered from the wording of Regulation 17 (i), and more particularly from Food Inspection Decision 43, which stated that on and after October 1, 1907, the labels must be originally properly printed. This statement was advisory and conveyed a warning that a further extension of the privilege need not be asked. It is desirable, of course, both from the standpoint of the Government officials who have charge of the enforcement of the law and from the view-point of the manufacturers, that the labels should be correct as originally printed.

Any person has a right to use a label which is not false or deceptive in any particular, even though this result is arrived at through the use of stickers, erasures, or other suitable means. Attention, however, is directed to the fact that misleading and deceptive statements must be

obliterated. In other words, it is not sufficient, in the opinion of the Board, that a deceptive statement should be allowed to remain on one portion of the label with a corrective statement upon another portion of the label. This principle of correction will be waived until further notice in case of decorated sardine tins which were printed and manufactured prior to January 1, 1907. In these cases the corrections may all be made in one label attached securely to one side of the package. Each invoice should be accompanied by a certificate from the exporter, showing the date of manufacture of the tins.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. MCCABE,

Board of Food and Drug Inspection.

(F. I. D. 70.)

ABUSE OF GUARANTY FOR ADVERTISING PURPOSES.

The attention of the Department has been called repeatedly of late to the abuse, for advertising purposes, of the serial number assigned to a guaranty. The Department of Agriculture accepts no responsibility for the guaranty which the manufacturer or dealer files. Particular attention must be paid to the fact that it must neither be directly stated nor implied in any fashion that the Department of Agriculture or the United States Government guarantees or indorses the products to which the guaranty and serial number are attached. *The guaranty represented by the serial number is the guaranty of the manufacturer and not of the Government.*

To facilitate business a serial number is assigned to this guaranty, and the guaranty is filed in the Department of Agriculture for the purpose of verifying the serial number when it is used on packages of goods.

The misuse of the serial number is a misrepresentation, and in each case of such an abuse the serial number will be withdrawn and the guaranty returned after proper notice. Serial numbers, however, which have been issued and passed into commerce prior to withdrawal will be respected by the Department in any action which may be brought against dealers selling goods bearing the number which is improperly used.

The attachment of the serial number or guaranty to articles which are not foods or drugs is also regarded as a misrepresentation on which a similar action will be based.

(F. I. D. 72.)

USE OF GUARANTIES AND SERIAL NUMBERS THEREOF.

A misapprehension exists as to the requirements of the regulations for the enforcement of the food and drugs act, June 30, 1906, in regard to placing the serial number on articles manufactured by persons who have filed a guaranty with the Department and to whom a serial number has been issued identifying the said guaranty. Many have the impression that if a guaranty be filed the serial number which is assigned thereto must be used on all foods or drugs manufactured by them.

Regulation 9 provides two general methods of guaranty. The first is described in subdivision (b) of Regulation 9, as follows:

(b) A general guaranty may be filed with the Secretary of Agriculture by the manufacturer or dealer and be given a serial number, which number shall appear on each and every package of goods sold under such guaranty with the words, "Guaranteed under the food and drugs act, June 30, 1906."

The second is described in subdivision (d) of Regulation 9, as follows:

(d) If the guaranty be not filed with the Secretary of Agriculture as above, it should identify and be attached to the bill of sale, invoice, bill of lading, or other schedule giving the names and quantities of the articles sold.

The statement in subdivision (b), that when a guarantor is assigned a serial number the said number *shall* appear, should not be construed as mandatory. The meaning is that if a manufacturer wishes to make effective the guaranty filed with the Department, he must place the legend and serial number on his goods, otherwise no protection is afforded to his customers in the absence of a special agreement or the alternative as provided in subdivision (d) of Regulation 9.

Regulation 9, in its entirety, is intended to provide for the enforcement and administration of section 9 of the food and drugs act, which reads as follows:

SEC. 9. That no dealer shall be prosecuted under the provisions of this Act when he can establish a guaranty signed by the wholesaler, jobber, manufacturer, or other party residing in the United States, from whom he purchases such articles, to the effect that the same is not adulterated or misbranded within the meaning of this Act, designating it. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such

articles to such dealer, and in such case said party or parties shall be amenable to the prosecutions, fines, and other penalties which would attach, in due course, to the dealer under the provisions of this Act.

A study of the law in connection with the regulations makes it apparent that the intention is to provide a means whereby the manufacturer can assume responsibility under the law for the character of the goods manufactured by him, after they have passed out of his possession into the hands of the person who purchased them from him. In no case is a guaranty a good defense, unless it be from the person who sold the goods to the person offering the guaranty as a defense. In order to simplify the procedure, the Department volunteers to act as custodian of the guaranty, which is an offer on the part of the manufacturer to free dealers, reselling his goods, from responsibility, under the law, for possible misbranding or adulteration. In order that the guarantor may convey this intention on his part to purchasers of his goods, a serial number is assigned to such guarantor, and by placing this number on his goods he fixes his responsibility. Whether he desires to enter into an agreement of this kind with the purchaser of his goods is a matter wholly within his discretion, and he can use the serial number or not for this purpose, as he may please. The use of the number will save the trouble of individual guaranties with each individual transaction or each individual customer. In other words, *the label itself will carry notice that the manufacturer holds himself responsible, under the law, to the persons who purchase goods directly from him, for any misbranding or adulteration.*

(F. I. D. 69.)

INSPECTION OF FOOD AND DRUGS AND IDENTIFICATION OF INSPECTORS.

In connection with the enforcement of the food and drugs act, June 30, 1906, inspectors of the Bureau of Chemistry will visit establishments in which food and drug products are manufactured, stored, or sold. They will make report to the Bureau regarding conditions of manufacture and will take samples wherever it is desired, paying the regular prices for such samples.

In case the report of the inspector, or the examination of the sample taken by him, discloses a violation of the law, no action will be taken until the dealer or manufacturer has been notified and afforded a hearing before the Board of Food and Drug Inspection. The

preliminary hearing in each case may be held before the chief of the laboratory making the examination. In case of an adverse decision the recommendations of the chief of the laboratory, together with a digest of the testimony, must be submitted to the Board of Food and Drug Inspection for final action.

According to Regulation 5 (a)—

The parties interested therein may appear in person or by attorney and may propound proper interrogatories and submit oral or written evidence to show any fault or error in the findings of the analyst or examiner.

It is held that the interested parties need not necessarily appear in person or by attorney, but, instead, may submit a brief to the Board of Food and Drug Inspection stating their side of the case.

If the results of the inspection and examination indicate that the law has not been violated, or if it is believed by the Department that prosecution is unwarranted because of irregularity of sample, or for other reason, the dealer will be notified that no further action will be taken with reference to that sample.

No information will be given in any case by an inspector or branch laboratory of the Bureau of Chemistry regarding the report of an inspection of a factory or the result of an analysis. No statement will be made at any time except as mentioned above regarding the analysis of a sample that is found to be in accordance with the law. No certificate of analysis will be given, and no report other than the notice of a violation of the law referred to above. *Requests for reports upon samples taken will be answered by a copy of this decision.*

(F. I. D. 68.)

LABELING OF FOOD AND DRUG PRODUCTS "MANUFACTURED FOR," "PREPARED FOR," "DISTRIBUTED BY," ETC.

It should be borne in mind that the law forbids all forms of misrepresentation. Food mixtures and compounds having "distinctive names" must in all cases bear the name of the place of manufacture. No drug products, whether simple, mixed, or compounded with or without "distinctive names," are required to bear the name of the manufacturer or producer, or the place where manufactured or produced, except when sold under proper name brands, i. e., brands in which both the given name and the surname are used. All food and drug products sold under such proper name brands should bear the name

of the manufacturer or producer and the place of manufacture or production. In all cases where the name of party or place is stated upon the label such name must be the true name of the actual manufacturer, producer, or packer and the true name of the place where the article was manufactured, produced or packed.

If, for trade reasons, when not required by law, a name or a place be given upon the label of foods or drugs manufactured or packed for any person, firm, or corporation by another person, firm, or corporation, one of two forms of labels is allowed, viz:

(a) The name of the actual manufacturer or packer and the place where the goods were actually manufactured or packed may be given, or

(b) The name of the person, firm, or corporation for whom the goods are manufactured or packed or by whom they are distributed may be given, if preceded by the words "Prepared for," "Manufactured for," "Distributed by," etc. The phrase "Sold by" is not satisfactory. The approved phrase shall be set in type not smaller than eight-point (brevier) caps.

This rule holds even if the formula or prescription be furnished or owned by the parties for whom the goods are manufactured or packed.

Bill Nye's Ads

Bill Nye, the humorist, once had a cow to sell, the story goes, and advertised as follows: "Owing to my ill health, I will sell at my residence in township 19, range 18, according to the government survey, one plush raspberry cow, age eight years. She is of undoubted courage and gives milk frequently. To the man that does not fear death in any form she would be a great boon. She is very much attached to her present home with a stay chain, but she will be sold to any one who will agree to treat her right. She is one-fourth shorthorn and three-fourths hyena. I will also throw in a double-barrel gun, which goes with her. In May she usually goes away for a week or two and returns with a tall red calf with wobbly legs. Her name is Rose. I would rather sell her to a non-resident."—Retail Druggist.

Pharmaceutical Societies

The Fourteenth Semi-Annual meeting of the Nevada State Board of Pharmacy was held at Reno, Nevada, November 6, 1907.

Permanent certificates were granted to: E. R. Strohecker, Beckwith, Cal.; Charles Nelson Hantz, Homestead, Pa.; W. W. Beitenman, Los Angeles, Cal.; W. W. Shartel, Cedarville, Cal.; J. W. Swain, Long Beach, Cal.; Robert W. Tucker, Goldfield, Nev.; Edward H. Charette, Goldfield, Nev.; Frederick Arthur Abrams, Goldfield, Nev.; Chas. C. Banfield, Wonder, Nev.; Carl P. Bohland, St. Paul, Minn.; Benjamin H. Day, Carson City, Nev.; Lawrence E. Inman, Tonopah, Nev.; Henry Andrew Gries, Rhyolite, Nev.; Eugene S. Wharton, Rhyolite, Nev.; A. H. Hoag, Fairview, Nev.; Geo. E. Mager, Tonopah, Nev.; Edward J. Lage, Paulline, Ia.; Lee Buckman, Elkhart, Ind.; Edwin F. Smith, Lovelock, Nev.; Richard Duckering, Goldfield, Nev.; J. H. Messinger, Ely, Nev.; Albert M. Parker, San Jose, Cal.; L. S. Welch, Kalispell, Mont.; J. D. B. Grieg, Goldfield, Nev.; Chas. W. Blake, Tonopah, Nev.; R. J. Saunders, Bakersfield, Cal.; Francis J. Belz, Reno, Nev.

F. J. STEINMETZ,

Secretary Nevada State Board of Pharmacy.

Carson City, Nev., Nov. 11, 1907.

Washington State Board Examination

Out of 200 applicants for license of a registered pharmacist, 47 passed an examination held in Tacoma, October 28, 29 and 30 by the State Board of Pharmacy. Secretary of the Board P. Jensen has finished correcting papers and the following persons qualified:

F. A. Mathews, Seattle; H. Ratz, Seattle; H. Tamm, Seattle; J. McCaughan, Seattle; Percy Sether, Seattle; J. H. Harrison, Se-

attle; W. L. Snell, Tacoma; Ossi Heikel, Astoria, Ore.; O. C. Palmer, Seattle; Geo. C. Mack, Seattle; B. F. West, Seattle; H. E. Rupp, Seattle; G. H. Rolland, Snohomish; F. C. McCagherty, Bellevue; S. A. Mortland, North Yakima; E. C. King, Seattle; R. E. Baily, North Bend; H. B. Francis, Snohomish; H. D. Hipwell, Bellingham; A. Y. Davis, Seattle; Wm. B. Perry, Seattle; H. S. Groat, Olympia; M. B. Holly, Olympia; C. W. Peaslee, Bellingham.

San Francisco Drug Clerks' Union No. 472

Drug Clerks' Union, No. 472, has decided to follow its custom of holding open house on New Year's, and has appointed a committee to make the necessary arrangements. The union elected the following officers for the current term: President, A. D. Fretz; First Vice-President, Professor J. H. Flint; Second Vice-President, W. E. Barth; Recording Secretary, William Murphy; Financial Secretary, Max E. Licht; Treasurer, C. F. Holman; Guide, M. J. Packfher; Guard, G. M. Clarke; Trustees—T. H. Wise, G. W. Meyers; Delegates to San Francisco Labor Council—W. W. Stocker and C. C. Bucher.

NORTHWESTERN BRANCH OF THE A. Ph. A.

The Northwestern Branch of the American Pharmaceutical Association, with the co-operation of the Minneapolis Retail Druggists' Association and the St. Paul Retail Druggists' Association, held its first meeting of the current year at the Hotel Nicollet on Wednesday evening, November 20th. The meeting was preceded by a dinner. About forty-five sat at table, including three physicians. Mr. Leo Eliel of South Bend, Indiana, ex-President of the American Pharmaceutical Association, a gentleman of national pharmaceutical reputation, was the guest of honor and delivered the principal address of the evening.

In opening the meeting Branch President Wulling stated that the purpose of the gathering was two-fold: first, to do honor to the honor-guest, and, secondly, to discuss ways and means for more extensively acquainting physicians with the scope and value of the Pharmacopœia and the National Formulary. The chair also called attention

to the first anniversary of the death of Albert E. Ebert, and to the fact that the death of Dr. Ebert occurred almost exactly a year ago. Mr. Eliel, who was a very close friend of Dr. Ebert, was asked to pay a tribute to his memory. This Mr. Eliel did in a fitting way, all present rising while he did so.

In his address, which was directed to the topic of the evening, Mr. Eliel quoted largely from the addresses delivered at the New York meeting of the A. Ph. A. by representatives from the American Medical Association, and replied to some phases of the subjects discussed by them. The keynote of the address was that pharmacists and physicians should get together, not for recrimination, but for amendment and improvement of both professions. After Mr. Eliel's address, which was heartily applauded, the chairman spoke to the subject of the evening, calling especial attention to the United States Pharmacopœia and National Formulary propaganda in various parts of the United States.

Dr. Bradley, Secretary of the Hennepin County Medical Association, discussed the subject from the standpoint of the physician, and was emphatic in his position that no reason existed why there should not be full harmony and co-operation between the medical and the pharmaceutical professions, and that his observations among physicians led him to believe that the medical profession was at present in a very receptive attitude toward suggestions and active help that pharmacists may give the physician in his intelligent selection of remedies.

Dr. Brown, Professor of Pharmacology of the College of Medicine and Surgery of the University of Minnesota, was the next speaker. He referred to the awakening on the part of the medical faculties to the necessity of more extended and thorough courses in materia medica, therapeutics, and pharmaco-dynamics, and instanced the College of Medicine and Surgery of the University of Minnesota as being among the first medical colleges to strengthen their courses in this respect. He believed that the physicians who have graduated within the last ten or fifteen years have resorted so largely to proprietary remedies for the reason that they have been inadequately prepared for the intelligent selection of remedies, and that the outlook is very hopeful for a betterment in this respect because the coming medical graduates will be

more proficient in metrology, prescription writing, and materia medica. He also emphasized the desirability of making the U. S. P. and N. F. text- and reference-books in medical colleges. In his own classes he required a considerable familiarity with these two standard works.

Dr. Tyrrell roundly condemned the prescribing of ready-made remedies, and showed how the conscientious physician strives to make medicine as specific and scientific as possible, not only by making correct diagnoses, but also by a wise and scientific selection of indicated remedies.

Several other speakers discussed the topic of the evening, all agreeing that the time was ripe for some concerted action on the part of the Twin City pharmacists to enlist the co-operation of the Twin City physicians to return to standard and ethical pharmacy, and a committee of nine was appointed to arrange for meetings in January in each of the cities, to which physicians should be invited as the guests of the pharmacists.

BOARDS OF PHARMACY IN THE PACIFIC COAST STATES

Arizona—Fred Fleishman, president, Tucson, '07; J. A. Dines, Tempe, '07; E. S. Wakelin, Phoenix, '07; A. G. Rounsville, Williams, '07; Harry Brisley, Prescott, '07; W. H. Butler, Globe, '07; A. G. Hulett, secretary, Phoenix, '07.

California—E. T. Off, president, Pasadena, '09; H. O. Buker, Fresno, '09; E. J. Molony, San Francisco, '09; R. S. Oakford, Long Beach; Geo. M. Sutherland, San Francisco, '09; J. O. McKown, Livermore, '09; A. L. Leber, Oakland, '09; C. B. Whilden, secretary, Alameda, '09.

Colorado—A. W. Scott, president, Fort Collins; S. L. Bresler, treasurer, Denver; W. L. Shockley, secretary, Cripple Creek.

Idaho—R. F. Payne, president, Idaho Falls; J. J. Pulse, Grangeville; L. W. Smith, secretary, Boise.

Indian Territory—F. C. Savage, president, Hartshorne, '06; H. C. Cobb, treasurer, Muskogee, '06; W. O.

Strother, Centralia, '09; H. M. Mitchell, Vinita, '10; H. D. Kinsley, secretary, Checotah, '08.

Montana—Sidney J. Coffee, president, Missoula, '07; Louis Dreibelbis, treasurer, Butte, '09; Alfred White-worth, secretary, Deer Lodge, '08.

Nevada—S. J. Hodgkinson, president, Reno; Wm. A. Brown, Winnemucca; A. M. Cole, Virginia City.

New Mexico—Bern. Ruppe, president, Albuquerque, '08; G. S. Moore, Roswell, '10; E. G. Murphy, Las Vegas, '07; P. Moreno, Las Cruces, '10; A. J. Fischer, secretary, Santa Fe, '09.

Oklahoma—A. B. Clark, president, Watonga, '08; E. E. Howendobler, treasurer, Perry, '07; F. B. Lillie, secretary, Guthrie, '06.

Oregon—Z. J. Riggs, president, Salem, '07; J. M. A. Laue, treasurer, Portland, '09; Geo. C. Blakely, The Dalles, '10; Clyde G. Huntley, Oregon City, '11; Miss Kittie W. Harbord, secretary, Salem, '08.

Texas—The law provides for a board of pharmacy in each judicial district.

Utah—B. F. Riter, president, Logan, '11; W. N. Dayton, Salt Lake, '10; John Cully, Ogden, '11; J. L. Franken, Salt Lake City, '08; C. H. McCoy, secretary, Salt Lake City, '08.

Washington—J. W. McArthur, president, Spokane, '07; E. P. Offerman, Fairhaven, '10; L. L. Tallman, Walla Walla, '11; T. W. Lough, Seattle, '09; P. Jensen, secretary, Tacoma, '08.

Wyoming—F. H. Eggleston, president, Laramie, '11; C. B. Gunnell, Evanston, '12; F. W. Roedel, secretary, Cheyenne, '09.

PACIFIC COAST PHARMACEUTICAL ASSOCIATION

The proposed Pacific Coast Pharmaceutical Association is now represented by the State societies of

Oregon, Washington, and California. At a meeting held in Portland during the Lewis & Clark Exposition in 1905, a local committee was appointed in each of the three States, and it was decided to hold the first meeting in San Francisco in the summer of 1907, but owing to the great calamity in San Francisco on April 18, 1906, it was found to be impossible to entertain visitors in San Francisco at that time. The Secretary of the California local committee was instructed to communicate with the secretary of each of the other local committees and suggest that the meeting be postponed for one year. This was done, and when they were assured that San Francisco would then be in a position to entertain them, the local committee of Washington and of Oregon readily consented to give California the first meeting of the Pacific Coast Pharmaceutical Association.

(From Report of Secretary F. W. Nish to the California Pharmaceutical Society.)

BAL(LOONATIC)AL CONTEST

The recent international contest demonstrated three things: (1), The balloons went up; (2), the balloons were evidently dirigible, for those that went up at once proceeded in all directions of the compass; (3), all balloons that went up sooner or later came down again. Wonderful! Magnifique! Banzai! Grossartig!

NEVER WAS BORN

Out in Downs a little Swede boy went to school and the teacher asked him his name. "Yonny Olsen," he replied. "How old are you?" asked the teacher. "Ay not no how old Ay bane." "Well, when were you born?" continued the teacher. "Ay not born at all, Ay gat stepmutter."

American Pharmaceutical Ass'n.
Hot Springs, Ark., Nov. 7, 1908

Drug News

Martinez, Nov. 20.—Alexander Innis, 70 years old, a well to do farmer on the Clayton road, near Concord, was accidentally poisoned today by mistaking corrosive sublimate tablets for an indigestion medicine, which he had been taking. Innis was stricken early this morning. Dr. George McKenzie was called, but the deadly drug had proved fatal before medical relief could avail.

Innis had lived on his country place in this county for eight years. He was a pioneer of California and had been largely interested in commercial affairs before his retirement to the country. He was a salesman on the road years ago for Murphy, Grant & Co. and Levi Strauss & Co. of San Francisco. Innis owned property at Santa Rosa. He leaves a wife and a daughter, who were with him when he died. A son in Mexico has been notified of his father's death.

Since the Pure Food law went into effect a certain kind of raspberry jam has borne this inscription: "This jam is made of glucose, with artificial seeds, and is colored with harmless aniline dyes."

City Attorney Rutherford of Napa, Cal., was instructed to draft an ordinance making it a misdemeanor to throw samples of patent medicines, pills, etc., in the yards of residences within the city.

The Kansas State pure food and drugs law, which went into effect on the first of the month, has placed both druggists and grocers of that State in a sad predicament, particularly the former. All of them have large stocks of proprietary medicines which are unsalable because the manufacturers are either out of business or refused to furnish the "stickers" denoting the contents.

The latest industry to be inaugurated in the State of Chihuahua, Mexico, is the production of turpentine on an extensive scale.

CLERKS TO ORGANIZE

Portland, Ore., Nov. 18.—At an informal meeting of the clerks employed in the local drug stores steps were taken to form an

organization of the drug clerks of the city, to be affiliated with the Retail Clerks' International Protective Association. J. H. Hubachek, of San Francisco, was appointed organizer, with power to form a local branch of the international association. Another meeting will be held and the local branch permanently organized.

According to Dr. Kebler, Chief of the Drug Laboratory, Bureau of Chemistry, U. S. Department of Agriculture, more pharmaceutical chemists are needed to carry on the work of the department. The candidates are required to possess a B. S. degree or its equivalent. This markedly limits the number of eligible candidates.

Abbott's Success-making Specialties, including H-M-C Abbott, the new hypodermic anæsthetic, Alkaloidal Granules, Tablets and Synergistic Specialties, are ready sellers; first, because they sell on their own merits, and, secondly, because the Abbott Alkaloidal Company, which manufactures them, creates the initial demand for them by extensive advertising. Druggists can sell these specialties without half trying. In describing its methods of introducing its goods, the company says: "Ten years of generous, gingery advertising in an average of more than 100 medical journals, at a tremendous expense, plus unquestionable merit, has popularized 'Abbott's Success-Makers' to such an extent that every retail druggist in the land not stocked should put in a full line, and those now sparsely stocked must increase their supplies liberally or lose trade. These goods are staple and the demand lively." For the details of this special proposition, address the Abbott Alkaloidal Company, at its home office and laboratories in Chicago, or at its branches, 251 Fifth Avenue, New York City; 1361 Franklin Street, Oakland, Cal., and 324 Pacific Building, Seattle, Washington.

J. A. Manor and Irv Dixon of Colusa have cut and sacked thirty-three tons of

grindelia robusta. It is sacked and shipped to Detroit, Mich., and New York City, where it is the principal ingredient in patent medicines for the cure of kidney troubles, asthma and other ills.

The co-partnership heretofore existing between Alex Plante and C. Landaal, doing a drug and sundry business in the town of Lynden, Wash., under the name of Plante-Landaal Co., has been dissolved by mutual consent, the interest of Alex Plante having been assumed by Iver Langland.

W. Trewartha, of Redding, is having a 12-foot addition built to the rear of his drug store, which will be used as a laboratory when completed.

In a series of pamphlets the Olive Growers' Association of Los Angeles and the Interstate Cottonseed Crushers' Association are waging an interesting warfare, each on the other's products. The former recently issued at its exhibit in Atlantic City a circular denouncing cottonseed which has stirred the publicity bureau of the cottonseed crushers to the publication of a long defense.

O. D. Baker, of Sacramento, has accepted a position at the Mariposa drug store.

Dr. Fred A. Grazer of San Francisco has taken a position at the Mariposa drug store.

The Alexander olive orchard in Happy Valley, Cottonwood, Cal., owned and conducted by Geo. D. Barber, has produced this season 20,000 gallons of olives.

J. H. Hubachek, International Organizer of the Retail Clerks' International Protective Association, was recently in Seattle to organize the drug clerks of the city into an association identified with the labor unions.

The American Drug Company of Los Angeles has been established with a capital stock of \$25,000, \$20,000 subscribed by A. J. Neve, J. N. Kirkland and Donald Barker.

H. H. Eaton has purchased the Ukiah Drug store and is stocking it up and intends to have one of the finest places in town.

Frank P. Storm, one of the large distillers of perfumery in the United States that threatens to replace the European monopoly of that industry, has visited Santa Barbara. There is a rumor that he is seeking a suitable location for the cultivation and propagation of those sweet-scented flowers that are used in the manufacture of perfumery.

The Hahman Drug Company of Santa Rosa have moved into their fine new store on Exchange Avenue.

The Highland Park, Cal., Drug Company, under the ownership and management of W. S. Prettyman & Son, has grown within a few short months into an institution to which every citizen of Highland Park points with pride.

The car-bar district of Los Angeles is sifted down to one grocery, one drug store, one restaurant, one barber shop, and one pool-room. The fittest is supposed to have survived.

Honolulu Drug Company, Limited, has filed its articles of association in the office of the Treasurer of Hawaii. J. F. Childs, F. M. McCallum, C. H. Rauen, Henry Bicknell and F. O. Boyer, all of Honolulu, are the incorporators.

W. S. Masten of Los Angeles has accepted a position with the Sun Drug Company of Riverside.

A. Skinkle, manager of the Hardman Drug Company of Riverside, has gone to Gilroy to look after his property interests.

The temporary drug store building of Dr. A. E. Kosby of Yuba City is ready to receive the stock of new goods.

An agent of the Denver Antiphlogistine Company, commonly known as "Denver mud," was in Salt Lake City recently with the idea of establishing a factory.

Prominent among the beautiful new stores of Berkeley is the pharmacy of C. A. Black, opened recently at the corner of Shattuck Avenue and Kittridge Street.

G. L. Robbins, the Porterville druggist, has been confined to his home for several days on account of illness.

Joseph Campodonico, of the Stockton Drug Company, visited San Francisco to attend the Alumni banquet of the St. Ignatius College.

Mr. Hull, druggist, is having some improvements made on his Springfield, Oregon, store building.

Max Clericus, who twenty-five years ago started in the drug business in Seattle, situated on the northeast corner of First Avenue and Madison Street, died at his home, 1133 Sixteenth Avenue north Tuesday night of diabetes and consumption.

William McBride, of Spokane, Wash., who for several years has conducted the Palace drug store, sold it to Dr. J. D. Plamondon.

Drug clerks of Seattle met at the Labor Temple and formed a Drug Clerks' Association. The organization in many respects is similar to the San Francisco association.

Paul Barsi, who has been employed in the Anderson pharmacy of Tulare, has accepted a position with Ernest L. Smith's drug store in Visalia.

Mr. Truax, of the Merced Drug Company, Merced, Cal., expects to move their big stock of drugs and medicines and sundries into the Main Street building, recently occupied by the Hudiburg pharmacy.

R. E. Miller of San Francisco was recently at Los Angeles. Mr. Miller is at the head of the Owl Drug Company.

Charging that the Department of Agriculture has shown a lack of expert knowledge of facts in making regulations for carrying out the provisions of the National Food and Drugs act, the New York Sections of the Society of Chemical Industry and the American Chemical Society have passed joint resolutions asking that the publication of these circulars be suspended until steps can be taken for better protecting the interests of the manufacturers.

A new business firm has been launched in Eureka, Cal. This is the Vance Pharmacy, of which Eugene Thurston is a half owner with E. A. Walters, who has so long and successfully conducted the business.

The storeroom to be occupied by the Shadle drug store of Turlock is being rapidly put into condition.

Fairfield is to have a new drug store. A. H. Monroe has obtained a lease on the Ambrose Building, on Texas Street, and has fitted it up for a first-class pharmacy. Mr. Monroe will have associated with him J. B. Wingate, formerly of San Francisco.

The drug store of H. F. Gilliland, located on the west side of Euclid Avenue, is one

of the most up-to-date stores in Ontario, Cal. Mr. Gilliland has been following the drug business for the past twenty-four years.

A gas explosion in the Interbay Pharmacy of Seattle, Wash., damaged the store and contents to the extent of \$500 and almost cost W. S. Pierce, proprietor of the store, his life. Mr. Pierce was blown through the front door, which was shattered by the explosion, but he sustained only a few slight burns and bruises.

A. G. Lippen, of Los Angeles, has rented the old W. H. Baldrige drug store, Escondido, Cal., and will open up an up-to-date drug store as soon as the goods can be shipped and put on the shelves.

A new drug store has been opened at Pasadena in the store room recently vacated by the Model Grocery Company by Messrs. McKay and Monkman.

P. W. Barrett, of Los Angeles, has purchased the drug store of L. A. Rockwell at Compton, Cal., and will put in an up-to-date stock of goods.

For Sale. Established drug business within 60 miles of San Francisco; will sell for invoice or will sell fixtures alone. Address D. C. M., care of **Pacific Pharmacist**.

For Sale. Drug store in a prosperous and rapidly growing town in Sonoma County. Apply to C. Zetterlaud, 711 Sansome St., San Francisco.

For Sale.—First-class drug stock and fixtures in a good Idaho town. Invoices \$2,000. If interested, write to Box 8, Stites, Idaho.

Boxes, Labels
Cartons, Etc.

Order by Mail Now
From
F. C. FELTER
228 Lumber Exchange Building
Portland, Oregon
Representing Pictorial Printing Co., Aurora and Chicago, Ill.

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

THE MARKET

From a perusal of the price list, it will be noted that changes, with a few exceptions, present features of comparatively little significance. While advances are exceedingly few in number, the decline column is well up to the average. Following the weakness of Opium, which has declined since last issue 50 cents per pound, Codeine has dropped 30 cents and Morphine 20 cents per ounce. Other of the more prominent changes are tabulated below.

Advanced.	Declined.
Oil Cubebs	Borax
Oil Wormwood	Bromides
Quince Seed	Citrates
Thymol	Codeia
	Dandelion Root
	Formin
	Lithium Salts
	Menthol
	Morphia
	Oil Bergamot
	Oil Cloves
	Oil Lemon
	Opium
	Resorcinol

ACETANILID. N. Y. Q., 1-lb. cart. incl..lb	38	Carbolic, Loose, crys. lb	70
Powdr., N. Y. Q., 1-lb. cart. incl.....lb	38	Carbolic, Solution, 1-lb. bot.....doz	2 50
ACETONE. Technical.....lb	45	Carbolic, Crude gal	40-50
ACID. Acetic No. 8, carboys.....lb	07	Chromic, 1-oz vials oz	15
1-lb bottles, M. C. W.....lb	20	Chrysophanic, true, M.C.W., 1-oz vials..oz	45
5-lb bottles, " lb	15	Cinnamic, P. W. R.....oz	39
Glacial, M. C. W. lb	44	Citric, crys lb	60-63
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21	Gallic, 1-oz cartons oz	11
Arsenic, Hydrated Pure.....lb	14	Gallic lb	70
Arsenous, Lumps, Pure lb	8	Hydrobromic, conc., 1-oz vials, M.C.W...oz	15
Arsenous, Powd., Pure lb	8	Hydrobromic, U. S. P., 10%, M.C.W....lb	34
Benzoic, from Toluol, M.C.W., 1-lb cart.incl lb	57	Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10
Benzoic, from Toluol, M. C. W.....oz	13	Hydriodic (Sp. gr. 1.50).....oz	42
Benzoic, True from Benzoin.....lb	35-1 50	Hydriodic (Sp. gr. 1.70).....oz	52
Benzoic, from Toluene, 1-oz. cartons.....oz	13	Hydrocyanic, U. S. P., Mallinckrodt's...lb	39
Benzoic, from Toluene lb	55-65	Hydrocyanic, U. S. P., Scheele's.....oz	35
Boracic lb	16-18	Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30
Boracic, powd., M. C. W.....lb	19	Hydrofluoric, 1/2s, g. p. bots. incl. " ..lb	1 80
Boracic, im. powd., C. P., 1-lb cart. incl..lb	27	Hydrofluoric, 1/4s, g. p. bots. incl. " ..lb	2 25
Boracic, Squibb's, 1-lb bottle.....lb	45	Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37
Boric, H. P. lb	28	Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24
Boric, powd., pure lb	20	Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19
Boric, Impalp., powd. lb	28	Lactic, conc., 1-oz vials, M. C. W.....oz	12
Butyric, 100% oz	29	Lactic, conc., 1s lb	79
Butyric, H. P. lb	2 14	Lactic, dilute, 1-oz vials, M. C. W.....oz	8
Cacodylic, 1/8 oz	4 00	Muriatic, carboys lb	3 1/4
Camphoric oz	40	Muriatic, 6-lb bots.....each	75
Carbolic, Calvert's No. 1.....lb	2 00	Muriatic, C. P., 6-lb bots.....lb	22
Carbolic, Calvert's No. 2.....lb	1 50	Muriatic, C. P., 1-lb bots.....lb	38
Carbolic, 1-lb tin, M.C.W., gilt label....lb	28	Nitric, carboys. lb	8
Carbolic, M.C.W., 5-lb can, gilt label....lb	25	Nitric, 7-lb bots.....ea	1 10
Carbolic, M.C.W., 10-lb can, gilt label...lb	24	Nitric, C. P., 7-lb bots.....lb	22
Carbolic, M.C.W., 25-lb can, gilt label...lb	22	Nitric, 1-lb bots. lb	40
		Nitro-Muriatic lb	40
		Nitrous, fuming lb	65
		Oxalic. lb	14-16
		Oxalic, chem. pure, M. C. W.....lb	30
		Phosphoric, glacial lb	64
		Phosphoric, syrupy (85%) lb	55
		Phosphoric, diluted, M. C. W.....lb	25
		Phosphoric, M. C. W., U. S. P., 50%..lb	40
		Phosphoric, glacial, 1-oz vials.....oz	11
		Phosphoric, glacial, 1s, M. C. W.....lb	64
		Picric lb	60-70
		Pyrogallic, Resublimated oz	27
		Pyrogallic, 1-lb cans lb	2 35
		Pyrogallic, 1/2-lb cans lb	2 45
		Pyrogallic, 1/4-lb cans lb	2 55
		Pyroligneous gal	40
		Salicylic, 1-lb cartons lb	46
		Salicylic, from Oil Wintergreen.....oz	44
		Salicylic, Amorph. lb	46
		Succinic, oz bottles oz	1 14
		Sulphuric, Aromatic lb	75
		Sulphuric, carboys lb	2-2 1/4
		Sulphuric, 9-lb bottles each	1 00
		Sulphuric, C. P., 9-lb. bottles.....lb	22
		Sulphuric, C. P., 1-lb bottles.....lb	38
		Sulphurous, U. S. P., solution.....lb	25
		Tannic. lb	85-90
		Tannic, P. W. R.....lb	1 15
		Tartaric, crystallized lb	39-45

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Tartaric, powdered	lb	39-45	Muriate, powdered, pure.....	lb	19
Tri-chlor-acetic	oz	32	Muriate, Po	lb	17
Valerianic	oz	20	Muriate, Po., Squibb's	lb	35
ACONITINE. Amorphous	dr	1 40	Nitrate	lb	44
Cryst.	dr	1 40	Oxalate	lb	52
ADAPES LANAE. B. P.	lb	35	Phosphate	lb	84
AGARIC. White.	lb	45	Salicylate	lb	1 10
ALBOLINE.	lb	50	Salicylate	oz	13
5-lbs	lb	45	Succinate	oz	1 20
Liquid	lb	50	Sulphate, com'l	lb	12
Liquid, 5-lbs	lb	45	Sulphate, C. P.	oz	29
AGURIN	oz	1 70	Sulpho Cyanate, pure	oz	10
ALBUMEN. Egg.	lb	1 45	Valerianate, cryst., 1-oz vials.....	oz	24
ALCOHOL. Absolute.	qt	1 00	Valerianate, cryst.	lb	1 75
94%, 10-gal, case	gal	2 93	AMMONOL	oz	1 05
94%, 5-gal. case	gal	2 98	AMYL. Acetate	lb	79
Denatured, 5-gal. can.....	gal	70	Butyrate, M. C. W.	oz	30
Wood, 5-gal. case.	gal	75	Nitrite	oz	29
Wood, Columbian Spirits, 5 gal. in case.gal	1 02		Valerianate, M. C. W.	lb	2 59
Wood, Columbian Spirits, barrels.....	gal	85	ANNATTO. Roll	lb	60
Wood, Columbian Spirits, ½ barrels....	gal	95	ANODYNE. Hoffman's, 1-lb bottle.....	lb	75
Cologne Spirits, 5 cents advance over price of			ANTHRASOL	oz	60
Alcohol.	oz	25	ANTIFEBRIN	oz	17
ALDEHYDE. Conct.	oz	25	ANTI-KAMNIA and its combinations.....	oz	1 00
ALLSPICE.	lb	17	10-oz lots for \$9.25; 25-oz for \$22.80		
Powdered	lb	20	Tablets, Vest Pocket	doz	1 75
ALMOND MEAL.	lb	45	Tablets, Vest Pocket, 1 gross, 5% off.		
ALMONDS. Bitter, shelled.	lb	45	ANTIMONY. Black, powdered, pure.....	lb	15
Sweet, shelled.	lb	45	Black, powdered, commercial	lb	10
ALOIN. 1-oz vials	oz	16	Chloride, cryst., 1-oz vials.....	oz	22
ALUM. Ammonio-Ferric, M. C. W.	lb	34	Chloride, sol. (Butter of)	lb	39
Chrome	lb	21	Oxysulphuret (Kermes Mineral)	lb	1 00
Burnt	lb	15	Potassium Tartrate, powdered	lb	45
Ground	lb	7-9	Sulphuret, precipitated	lb	92
Lump.	lb	5-8	ANTINOSINE	oz	2 10
Powdered.	lb	7-9	ANTIPYRIN. Knorr's	oz	35
ALUMINUM. Aceto-Tartrate, M. C. W....	oz	20	New	oz	25
Bromide, M. C. W.....	oz	29	APIOL. Fluid Green	oz	37
Chloride, M. C. W.....	lb	79	APOLSYIN. S. & G.	oz	65
Chloride, M. C. W.....	oz	14	APOMORPHINE. Hydrochlor. Am o r.,		
Hydrated, pure, M. C. W.....	lb	79	½-oz vial	oz	3 50
Metallic, M. C. W.....	oz	17	Mur. cryst.	oz	8 50
Sulphate, pure, M. C. W.....	lb	25-29	Muriate, Amorphous, ½-oz vials, M.C.W.oz	4 00	
ALUMNOL	oz	60	ARISTOL	oz	1 80
AMIDOL. 1-oz. can	oz	65	ARGOLS. Red	lb	15
AMMONIA. Spirits of	lb	75	Red, powdered	lb	20
Spirits of, aromatic	lb	75	ARGYROL	oz	1 50
Aqua, 26 deg., 1-lb. bot.....	lb	20	ARROWROOT. St. Vincent.....	lb	18-20
Aqua, 26 deg., 4-lb bot.....	lb	16	Taylor's Bermuda, ¼s and ½s.....	lb	35
Aqua, 26 deg., 5 gal. can.....	lb	11	Taylor's Bermuda, bulk	lb	35
Aqua, 26 deg., carboy.....	lb	9½	ARSENIC. Bromide, 1-oz vials, M. C. W..oz	27	
Aqua, Washing, 5-gal. can.....	gal	50	Chloride, sol., M. C. W.....	lb	30
AMMONIUM. Acetate, cryst., M. C. W....	oz	14	Iodide, 1-oz vials, M. C. W.....	oz	44
Arseniate, 1-oz vials, M. C. W.....	oz	22	Metallic	lb	45
Benzoate, 1-oz vials, M. C. W.....	oz	14	Red, powdered	lb	15
Benzoate, M. C. W.	lb	1 14	Solution (Donovan's)	lb	40
Bichromate, 1-oz vials, M. C. W.....	oz	14	Solution (Fowler's)	lb	30
Bromide, 1-oz vials, M. C. W.....	oz	10	Sulphured, red powdered	lb	33
Bromide, M. C. W.....	lb	43	Sulphured, yellow powdered	lb	33
Carbonate.	lb	15-18	White, lump	lb	30
Carbonate, powdered	lb	20	White, powdered, commercial.....	lb	18
Chloride, see "Muriate."			Yellow (orpiment)	lb	35
Citrate, 1-oz. vials, M. C. W.....	oz	15	ASBESTOS. Fibrous, gro.....	lb	20
Hypophosphite, 1-oz vials, M. C. W.....	oz	21	ASPARAGIN. ½-oz vials	oz	1 50
Hypophosphite, M. C. W.	lb	1 70	ASPIRIN	oz	43
Iodide, 1-oz. vials, M. C. W.....	oz	38	ATROPIA. Pure, ½-oz vials	oz	7 35
Muriate, lump.	lb	14-16	Sulphate, ½-oz vials	oz	6 25
Muriate, gran.	lb	10-12			
Muriate, gran., pure, 1-lb cartons.....	lb	20			

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BALSAM. Copaiba, 8-lb can.....lb	90	Mezereon, pressed, 1-lb.....lb	28
Copaiba, 5-lb bottle.....lb	95	Oak, red, pressed, 1-lb.....lb	22
Copaiba, 1-lb bottle.....lb	1 05	Oak, white, powdered.....lb	22
Copaiba, solidified.....lb	1 25	Oak, white, pressed, 1-lb.....lb	22
Fir, Canada.....lb	75-80	Poplar, white, powdered, 1-lb.....lb	25
Fir, Oregon.....lb	50-55	Poplar, white, pressed, 1-lb.....lb	25
Gurgun.....lb	40	Poplar, yellow, pressed, 1-lb.....lb	25
Peru.....lb	3 25	Prickly Ash, powdered.....lb	40
Sulphur.....lb	60	Prickly Ash, pressed, 1-lb.....lb	33
Tolu.....lb	65	Quebracho.....lb	35
BARIUM. Acetate, 1-oz vials, M. C. W....oz	16	Sassafras.....lb	28
Carbonate, M. C. W.....lb	37	Sassafras, powdered.....lb	25
Carbonate, precip.....lb	30	Simaruba.....lb	50
Chloride, chemically pure, M. C. W.....lb	33	Soap Tree.....lb	10-12
Nitrate, M. C. W.....lb	23	Soap Tree, ground.....lb	15
Sulphide, commercial.....lb	43	Soap Tree, powdered.....lb	15
Sulphide, pure.....lb	53	Sumac, pressed, 1-lb.....lb	25
Sulphate, M. C. W.....lb	13	Tamarac, pressed, 1-lb.....lb	25
BARK. Alder, black, pressed, 1-lb.....lb	25	Wahoo Root, pressed, 1-lb.....lb	33
Alder, red or tag, pressed, 1-lb.....lb	24	Wild Cherry.....lb	16
Angostura.....lb	30	Wild Cherry, ground.....lb	18
Ash, black, pressed, 1-lb.....lb	20	Wild Cherry, powdered.....lb	20
Ash, mountain, pressed, 1-lb.....lb	24	BAY RUM. Domestic.....gal	2 25
Ash, white, pressed, 1-lb.....lb	25	Imported.....gal	3 00
Barberry, pressed, 1-lb.....lb	30	BEANS. Calabar.....lb	40
Barberry, powdered.....lb	35	Tonka, Angostura.....lb	1 35
Bayberry, pressed, 1-lb.....lb	25	Vanilla, short, true Mexican.....lb	8 50
Bayberry, powdered.....lb	30	Vanilla, long, true Mexican.....lb	9 50
Birch, pressed, 1-lb.....lb	24	Vanilla, Tahiti.....lb	1 50
Black Haw, powdered.....lb	35	BEBEERINE. Pure, 1-oz vials.....oz	2 04
Black Haw, pressed, 1-lb.....lb	30	Sulphate, 1-oz vials.....oz	1 49
Black Willow, pressed, 1-lb.....lb	25	BENZOLE. Pure.....lb	35
Blackberry.....lb	20	BENZIN. Gallon.....gal	30
Buckthorn, pressed, 1-lb.....lb	25	5 and 10 gallons.....gal	25
Butternut, pressed, 1-lb.....lb	25	Pints.....doz	1 60
Calisaya, yellow, commercial.....lb	30	BERBERINE. Hydrochloride.....oz	2 55
Calisaya, yellow, commercial, powd.....lb	32	Sulphate.....oz	2 29
Calisaya, East India.....lb	42	BERRIES. Buckthorn.....lb	30
Calisaya, powdered.....lb	45	Cocculus Indicus.....lb	17
Canella.....lb	30	Cubeb, stemless.....lb	30
Canella, powdered.....lb	35	Cubeb, powdered.....lb	30
Cascara, Sagrada.....lb	18	Elder.....lb	30
Cascara, Sagrada, powdered.....lb	20	Juniper, Italian.....lb	10
Cascarilla.....lb	25	Poke.....lb	25
Cascarilla, powdered.....lb	30	Prickly Ash.....lb	40
Cassia.....lb	22	Sumac.....lb	25
Cassia, powdered.....lb	25	Sumac, powdered.....lb	30
Cinchona, red.....lb	45-50	BETOL.....lb	60
Cinchona, red powdered.....lb	45-50	BISMUTH. Acetate, M. C. W....oz	36
Cinnamon, Ceylon.....lb	40 50	Citrate, M. C. W.....lb	2 89
Cinnamon, Ceylon, powdered.....lb	40-50	Citrate, M. C. W.....oz	26
Cotton Root, powdered.....lb	35	Citrate and Ammonia, M. C. W....oz	26
Cotton Root, pressed, 1-lb.....lb	35	Citrate and Ammonia, M. C. W....lb	2 82
Cramp, powdered.....lb	25	Lactate.....oz	44
Cramp, pressed, 1-lb.....lb	25	Metallic.....lb	2 50
Cundurango.....lb	45	Nitrate, M. C. W.....oz	24
Cundurango, powdered.....lb	50	Oxide, Hydrated, M. C. W.....lb	3 68
Dogwood, pressed, 1-lb.....lb	20	Oxide Hydrated, M. C. W.....oz	34
Dogwood, powdered.....lb	25	Oxychloride, M. C. W.....lb	2 73
Elder, pressed, 1-lb.....lb	35	Salicylate, 40%.....oz	23
Elm, select, slabs.....lb	30	Salicylate, 64% Basic.....oz	25
Elm, ground, bulk.....lb	30	Salicylate, 64%, M. C. W.....lb	2 65
Elm, powdered.....lb	30	Subbenzoate.....oz	32
Elm, powdered, 1/4s.....lb	30	Subcarbonate.....lb	2 67
Elm, powdered, 1/8s.....lb	35	Subgallate.....oz	25
Elm, powdered, ozs.....lb	40	Subiodide, M. C. W.....lb	5 09
Hemlock, pressed, 1-lb.....lb	25	Subiodide, 1-oz vials, M. C. W....oz	39
Hemlock, powdered.....lb	30	Subnitrate, M. C. W.....lb	2 37
Jamaica Dogwood, pressed, 1-lb.....lb	35	Subnitrate, N. Y. Q.....lb	2 37
Jamaica Dogwood, powdered, 1-lb.....lb	35	Subnitrate, P. W. R.....lb	2 37

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Tannic, 1-oz vials, M. C. W.....oz	27	African, powdered lb	30
Valerianate, 1/8s oz	62	Bombay lb	20
BLUE MASS lb	65	CARAMEL gal, \$1.25. lb	30
Powdered lb	75	CARBON. Bisulphide lb	30
BLUE VITROL. Barrels, 7 1/2 lb	10-14	Bisulphide, 50-lb cans ea	5 18
Powdered lb	18	Bisulphide, Wheeler's 50-lb can.....ea	5 18
BOLE. Armenian lb	18	Bisulphide, 1-gal cans gal	1 43
BONE ASH lb	6-8	Bisulphide, quart bottles doz	4 50
BORAX. C. P., Squibb's lb	33	CARMINE. No. 40. oz	40
Pacific Coast Borax Co., 1-lb.....doz	1 14	No. 40. lb	4 50
Pacific Coast Borax Co., 3/4-lb.....doz	90	CASSIA FISTULA lb	20
Pacific Coast Borax Co., 1/4-lb.....doz	48	CASTOR FIBER. oz	1 50
Powdered lb	8-10	Castor Fiber, powdered oz	1 75
Pure Granular lb	25	CERATE. Cantharides lb	1 00
Refined lb	8-10	Goulard's, U. S. P. lb	70
BOROFORMOL. Pints doz	7 50	Resin, U. S. P. lb	50
BOROGLYCERIDE Solution. lb	60	Savin lb	60
BROMOFORM oz	20	Simple lb	50
BROMINE lb	83	Spermaceti lb	70
Chloride, solution oz	60	Turner's lb	60
BRUCINE. 1/8-oz vials, M. C. W.....oz	1 75	Zinc, Carbonate, true lb	60
BRUCINE oz	1 75	Zinc, Oxide lb	60
Phosphate oz	1 75	CERIUM. Oxalate oz	09
Sulphate, 1/8-oz vials oz	1 75	Oxalate, 1-lb. cartons.....lb	45
BUDS. Balm of Gilead lb	60	CHALK. Crayons, white lb	15
Cassia lb	50	French, cut lb	18-20
BUTTER CACAO. Ghirardelli lb	70	French, powdered lb	5-8
German lb	72	Precipitated, English lb	10-12
CADMIUM. Bromide, M. C. W.....oz	20	Prepared in drops, bulk lb	7-8
Iodide, M. C. W., 1-oz vials.....oz	33	Prepared in drops, 5-lb boxes.....lb	8-10
Sulphate, M. C. W., 1-oz vials.....oz	24	Prepared pink, 8-lb boxes.....lb	10
CAFFEIN. Bromide, 1-oz vials.....oz	37	White, in lumps lb	3-4
Citrated, N. Y. Q.....oz	28	CHARCOAL. Animal lb	8-10
Pure, N. Y. Q.....oz	35	Willow, powdered lb	15-20
Sulphate, 1/8-oz vials, Mallinckrodt's.....oz	60	CHINA CLAY lb	10
Salicylate, true salt, 1/8s, Mallinckrodt's.....oz	60	CHINESE SHAVINGS lb	60
CALAMINE lb	18	CHINOIDINE. 1-oz rolls oz	12
CALCIUM. Bromide, 1-oz vials, M. C. W.....oz	12	CHLORAL HYDRATE, CROTON, 1-oz vial	
Bromide, M. C. W.....lb	64	incl. oz	35
Chloride, fused, M. C. W.....lb	64	Crystals, M. C. W., 1s.....lb	1 35
Chloride, granular, M. C. W.....lb	30	Crystals, M. C. W., 1/2s.....lb	1 45
Glycerylphosphate oz	22	Crystals, M. C. W., 1/4-lb cartons.....lb	1 50
Hypophosphite, 1-oz vials. oz	14	Crystals, M. C. W., ozs.....lb	2 10
Hypophosphite. lb	89	Crystals, 1-lb g. s. b. incl., Schering.....lb	1 35
Hypophosphite and Sodium, 1-oz vials.....oz	16	Crystals, 1/2-lb g. s. b. incl., Schering.....lb	1 45
Hypophosphite and Sodium, M. C. W.....lb	1 09	Crystals, 1/4-lb g. s. b. incl., Schering.....lb	1 55
Iodide, 1-oz vials, M. C. W.....oz	37	Crystals, 1-oz g. s. vls. incl., Schering.....oz	17
Lactophosphate, soluble lb	1 35	CHLORALAMID 25 gramme	80
Lactophosphate, soluble oz	17	CHLOROFORM. 1-lb. tin, N. Y. Q.....lb	52
Phosphate, precipitated, 1-lb cart.....lb	20	In 7-lb. bottle, N. Y. Q.....lb	42
Phosphide, 1-oz vials oz	50	Squibb's, 1-500 gramme.....ea.	1 00
Sulphate, pure lb	49	CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	25
Sulphide, 1-oz vials oz	10	Bisulphate, M. C. W. oz	18
Sulphide lb	37	Muriate, M. C. W.....oz	17
Sulphite lb	84	Sulphate, 1-oz vials, M. C. W.....oz	17
Sulpho, carbolate, M. C. W.....oz	11	CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	50
CALOMEL. N. Y. Q.....lb	1 05	Bisulphate, 1-oz vials, M. C. W.....oz	30
Calomel, P. W. R., 1-lb boxes.....lb	1 05	Muriate, M. C. W. oz	32
English, Howard's lb	1 35	Salicylate, 1-oz vials, M. C. W.....oz	34
CAMPHOR. Monobromated, Mal'rodt's.....oz	25	Sulphate, 1-oz vials, M. C. W.....oz	30
Tar flake. lb	5-7	Sulphate, 5-oz cans, M. C. W.....oz	25
Tar balls. lb	5-7	Sulphate, 1-oz vials, P. W. R.....oz	28
CANDY. Coltsfoot Rock lb	30	CLOVES. Zanzibar lb	30
Horehound. lb	12	Zanzibar, powdered lb	35
Rock, on strings lb	15	COBALT lb	25
Rock, brown lb	16	Cobalt, powdered lb	30
Rock, red lb	15	COCAINE. Alk., M. C. W., 1-oz v'ls, incl. oz	3 50
Rock, white lb	14	Hydrochloride, M. C. W.....oz	2 65
CANTHARIDES. Russian, powdered.....lb	1 25	Hydrochloride Cryst., 1-oz v'ls, N.Y.Q.....oz	2 65
CAPSICUM. African, pods lb	25	Hydrochloride Cryst., 1/2-oz v'ls, N.Y.Q.....oz	2 80

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Hydrochloride Cryst., ¼-oz v'ls, N.Y.Q. .oz	2 90	15-gr vials ea	35
Hydrochloride Cryst., ⅛-oz v'ls, N.Y.Q. .oz	3 05	DOVER'S POWDER, U. S. P. lb	1 70
Hydrochloride, 1-oz vials, P. W. R. oz	2 65	DRAGON'S BLOOD, Mass. lb	55
COCHINEAL. Honduras. lb	60	Powdered lb	85
Honduras, powdered. lb	65	Reed's. lb	85
CODEINE. N. Y. Q., pure. oz	5 30	DIURETIN. oz	1 80
Muriate, N. Y. Q. 1 oz, \$5 05. ½s	5 25	DUBOISINE. Sulphate, 10-gr vial.	1 10
Phosphate, N. Y. Q., ⅛-oz vials. oz	5 00	EARTH, Fuller's, powdered. lb	8-10
Sulphate, M. C. W. oz	5 05	EIKONOGEN, lb, \$3.95; ½s, \$4.20. oz	37
Sulphate, 1-oz vials, P. W. R. oz	5 05	½s. lb	4 80
COLLODION lb	71	ELATERIN. 15-gr vial	1 25
1-oz vials doz	1 25	ELATERIUM, ⅛-oz vials oz	2 75
Cantharidal lb	1 85	EMERY. Flour. lb	10-12
Cantharidal, 1-oz vials doz	1 75	Grain. lb	10-12
Flexible lb	71	EMETIN (Resinoid) oz	7 53
Flexible, 1-oz vials doz	1 00	(Alkaloid), pure, 15-gr vial.	1 25
COLCHICINE. Cryst., 15-grain. gr	14	ERGOT. Spanish. lb	65
C. P., Amorph., 15-grain vials. gr	30	Spanish, powd. lb	65
COLOCYNTH. Apples, Trieste. lb	60-65	ERGOTIN. Bonjean oz	39
Apples, powdered lb	75	ERGOTOLE. S. & D. doz	4 50
COMPOSITION POWDER, 2-oz papers. lb	35	ESERINE (Physostigmine), 5-gr Alkaloid. gr	13
CONFECTION. Aromatic lb	1 00	Sulphate, 5-gr vials ea	50
Opium lb	1 50	Sulphate, 10-gr vials ea	1 00
Rose, U. S. P. lb	65	Sulphate, 15-gr vials ea	1 50
Senna, U. S. P. lb	70	ETHER. Acetic, M. C. W., 1-lb. bot. lb	61
Theriac lb	1 25	Benzoic, 1-oz bot. oz	34
COPPER. Acetate, cryst., C.P., M.C.W. lb	74	Butyric, 1-lb bot. lb	1 25
Acetate, com'l, lump lb	40	Chloric, U. S. P., M. C. W., 1-lb bot. lb	64
Acetate, Po. Verdigris lb	45	Chloric, concent., M. C. W., 1-lb bot. lb	74
Ammoniated lb	59	Formic, 1-lb bot. lb	1 59
Arsenite, 1-oz vials, M. C. W. oz	19	Hydrobromic, 1-oz bot. oz	20
Arsenite, 1-oz vials oz	19	Nitrous, conc., M. C. W., ¼-lb bot. lb	1 20
Bromide oz	32	Nitrous, conc., M. C. W., ½-lb bot. lb	1 10
Carbonate lb	38	Nitrous, conc., M. C. W., 1-lb bot. lb	1 00
Nitrate lb	54	Nitrous Spirit, 4-lb bot. lb	58
Sulphate, C. P., granulated, 1-lb. boxes. lb	23	Sulphuric, U.S.P., Mallinckrodt's, 1-lb can. lb	44
Sulphate, Caustic Pencils doz	1 75	Sulphuric, U.S.P., Mallinckrodt's, 3-lb can. lb	38
Sulphate, purified, 1-lb cartons. lb	21	Sulphuric, U.S.P., ¼-lb cans, P.W.R. lb	59
COPPERAS. bbls 1¼. lb	3-4	Sulphuric, U.S.P., 1-lb cans, P.W.R. lb	42
CORROSIVE SUBLIMATE. N. Y. Q. lb	95	Sulphuric, washed, 1-lb bot. lb	45
Powdered, N. Y. Q. lb	95	Sulphuric, Squibb's, in 1-500 gm cans. ea	88
1-lb boxes, P. W. R. lb	95	Sulphuric, Squibb's, in 1-250 gm cans. ea	49
COTOIN. Para, ⅛-oz. oz	14 00	Sulphuric, Squibb's, in 1-100 gm cans. ea	22
COTTON. Negative. oz	60	Valerianic oz	30
COWHAGE. 1-oz cans oz	55	ETHYL. Bromide oz	20
CREAM TARTAR, pure, powdered. lb	34-37	Chloride, 10 gramme tubes Bengue. doz	5 00
Pure, powdered, 25-lb box. lb	30	Chloride, 30 gramme tubes Bengue. doz	10 00
CREOLIN. ½-lb. doz	4 00	Chlodire, 10 gramme ea	40
1-lb doz	8 00	Iodide (see Hydriodic Ether) oz	54
CREOSOTE. Beechwood lb	94	EUCALYPTOL oz	16
½-lb lb	1 10	EUCAINE. A or B, ⅛s. oz	3 60
¼-lb lb	1 20	EUDOXINE. oz	2 10
CREOSOTE CARBONATE oz	65	Tablets, 3-gr. oz	2 60
In ¼-lb lb	9 25	Tablets, 5-gr. oz	2 50
In ½-lb lb	9 15	Tablets, 1-3 gr, ¼-oz bots. oz	3 00
In 1-lb lb	9 10	EUKATROL, powd. oz	1 00
CROCUS MARTIS lb	16	Tablets. oz	1 00
CUDBEAR lb	30	EUROPHEN. oz	1 80
CUMARIN oz	45	EXALGINE. oz	1 50
CUMENE (Cumol) lb	1 10	EXTRACT. Licorice, Corigliano. lb	45
CURCUMA. Powdered lb	16	Licorice, Mellor & Rittenhouse. lb	27-30
CUTTLEFISH lb	35	Licorice, M. & R., 25 and 50-lb box. lb	26
Jeweler's lb	85	Licorice, soft, perf., clearly soluble. lb	75
Powdered lb	30	Licorice, Y. & S. lb	27-30
DATURINE. Alk., cryst., 5-gr. ea	75	Licorice, powd. lb	35
DEXTRIN. lb	12-15	Logwood, bulk lb	15
DIASTASE. of Malt oz	1 14	Logwood, ¼s. lb	20
DIGALEN. ½-oz bottles ea	1 00	Logwood, ½s. lb	18
DIGITALIN. ⅛-oz vials oz	5 75	Logwood, 1s. lb	16
DIONIN. ⅛s. oz	6 25	Male Fern, U. S. P. lb	2 25

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Malt, dry	lb	1 25	Aloes, Barbadoes, powd.....	lb	55
Witch Hazel	gal	80-90	Aloes, Cape.	lb	20
Witch Hazel, 5-gal kegs, Dickenson's..	gal	1 05	Aloes, Cape, powd.....	lb	20-25
Witch Hazel, 10-gal kegs, Dickenson's..	gal	1 00	Aloes, Socotrine	lb	40
FAREOL.	oz	50	Aloes, Socotrine, powd.....	lb	40
FENETOLE	lb	2 00	Ammoniac tears.	lb	40
FERRATIN. Powder or tablets.....	oz	85	Arabic, Turkey, first pick.....	lb	55
FLAKE WHITE. English.	lb	15	Arabic, Turkey, second pick.....	lb	40
FLOUR. Gluten.	lb	15	Arabic, Turkey, sifted sorts.	lb	20
Rice.	lb	12	Arabic, first pick, granulated.....	lb	58
FLOWERS. Althea.	lb	40	Arabic, first pick, powd.....	lb	60-65
Arnica	lb	20-22	Asafoetida, Calcutta.	lb	40
Arnica, powd.	lb	25	Asafoetida, powd.	lb	45
Calendula, new	lb	90	Asphaltum.	lb	15
Chamomile, German, new.....	lb	35	Benzoin, marble, select.	lb	50
Chamomile, Roman	lb	40	Benzoin, powd.	lb	55
Elder	lb	30	Camphor, bulk	lb	90
Elder, pressed.	oz	25	Camphor, 1-oz blocks	lb	93
Kooso.	lb	75	Camphor, 24 to lb	lb	93
Kooso, powd.	lb	80	Camphor, powd.	lb	1 10
Lavender.	lb	35	Catechu, refined.	lb	18
Mullein.....	lb	1 00	Catechu, powd.	lb	30
Orange.....	lb	1 10	Copal	lb	35
Poppy, red.	lb	75	Damar.	lb	38
Rose, red.	lb	1 20	Galbanum.	lb	1 00
Rosemary.	lb	35	Gamboge	lb	1 10
FLOUR SPAR. Powdered.....	lb	25	Gamboge, powd.	lb	1 15
FORMALDEHYDE	lb	32	Guaiaac.	lb	35
5-lb bot.	lb	25	Guaiaac, powd.	lb	40
FORMALIN. S. & G.	lb	40	Kino, true.	lb	75
FORMIN	oz	18	Kino, true, powd.....	lb	80
GADUOL	oz	37	Mastic tears	lb	80
GAMBIER.	lb	15	Myrrh, Turkey.	lb	35
GARANTOSE. 550 times sweeter than sugar.			Myrrh, Turkey, powd.....	lb	40
1-lb cans	lb	2 25	Olibanum tears	lb	30
1-oz cans	oz	20	Opium	lb	6 75
GELATIN. Cooper's, 12-lb case.....	lb	65	Opium, powd	lb	7 75
Coxe's.	doz	1 50	Sandarac.	lb	45
French Pink.	lb	75	Scammony, Aleppo.	oz	40
French Gold Label.	lb	55	Scammony, Virgin, true.....	oz	75
French Silver Label.....	lb	40	Shellac, bleached.	lb	75
GLASS. Powdered.	lb	15	Shellac, orange.	lb	70
Soluble.	lb	25	Shellac, ground.	lb	75
GLUCOSE. 1-lb bot.....	lb	20	Spruce.....	lb	1 50
GLUE. Common.	lb	15	Tamarac, true.	lb	1 25
White, No. 1.	lb	25	Thus.	lb	12
GLUTOL	oz	65	Tragacanth, ribbon.....	lb	90
GLYCERINE. Price's.	lb	70	Tragacanth, powd.	lb	80
Pure, in 10-lb cans	lb	22	GUTTA PERCHA. Crude, shavings.....	lb	1 75
Pure, in 50-lb cans	lb	19 1/2	Crude, sheets.	lb	1 75
GLYCEROPHOSPHATES. Iron	oz	32	HEDONAL.	oz	1 60
Lime	oz	22	HEMICRANIN	oz	90
Potash	oz	29	HEMOGALLOL	oz	80
Soda	oz	28	Tablets	100	80
GLYCYRRHIZIN. Ammoniated	oz	34	HEROIN. 1-oz.	oz	6 70
GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..	doz	2 70	1/2-oz vial	oz	6 85
And Sodium Chlor, 15-gr vials, P.W.R..	doz	3 30	1/4-oz vial	oz	7 00
Chloride, 15-gr vials, M. C. W.....	doz	5 10	15-gr vial	ea	29
Chloride, 15-gr vials, P. W. R.....	doz	5 10	Hydrochloride, oz vial	oz	6 70
Mono-bromide, 15-gr vials.....	ea	1 25	1/2-oz vial	oz	6 85
Tri-bromide, 15-gr vials	ea	1 00	1/4-oz vial	oz	7 00
Tri-cyanide, 15-gr vials	ea	2 00	15-gr vial	ea	29
GOOSE GREASE.	lb	60	HEXAMETHYLENAMINE	lb	1 45-1 60
GRAINS. Paradise.	lb	40	"	oz	16
Powdered.	lb	45	HIERA PICRA.	lb	50
GUAIACOL. Carb.	oz	1 50	HOFFMAN'S ANODYNE.	lb	75
Merck's.	oz	18	HOMATROPINE, Alk'l'd, 5-gr vials.....	ea	2 25
GUARANA. Powd	lb	3 25	HOMATROPINE. Alk'l'd, 5-gr vials.....	ea	2 25
GUM. Aloes, Barbadoes.....	lb	50	Hydrobromate, 5-gr vials	ea	1 75
			Hydrochlorate, 5-gr vials	ea	2 10

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HOMOGLOBIN. Powd	oz	1 04
HOPS, new, bulk.	lb	37
New, ozs.	lb	50
New, ¼s, ½s.	lb	40
HYDROCHINON	oz	18
.....	lb	1 42
HYDROGEN PEROXIDE, Drevet's U.S.P.,		
1-lb bots.	doz	3 00
Drevet's U.S.P., ½-lb bots.	doz	1 90
Drevet's U.S.P., ¼-lb bots.	doz	1 40
Marchand's, 1-lb bots.	doz	8 00
Marchand's, ½-lb bots.	doz	5 25
Marchand's, ¼-lb bots.	doz	3 80
Marchand's, ⅛-lb bots.	doz	2 25
M. C. W., 1-lb bots.	doz	3 00
M. C. W., ½-lb bots.	doz	1 80
M. C. W., ¼-lb bots.	doz	1 20
Oakland, 1-lb bots.	doz	6 50
Oakland, ½-lb bots.	doz	4 00
Oakland, ¼-lb bots.	doz	2 25
Oakland, 5-lb bots.	ea	1 59
HYDRO NAPHTHOL.	oz	75
HYDRASTINE. Alkaloid	oz	10 04
Hydrochloride	oz	20 00
HYDRASTININE. Hydrochloride, 15-gr vls. ea		3 00
HYDROQUINONE	oz	18
HYOSCINE. Amorphous, 15-gr vials.	ea	2 00
Hydrobromate, 5-gr vials	ea	2 00
Hydriodide, 5-gr vials	ea	2 00
Sulphate, 5-gr vials	ea	2 00
HYOSCYAMINE. Alkaloid, crys. 15-gr vls. ea		4 75
Amorphous	gr	25
Hydrobromate, Amorph., 15-gr.	ea	3 00
Sulphate, crys., 15-gr	ea	3 03
Sulphate, Amorph., 5-gr vials.	ea	1 25
IATROL.	oz	95
ICHTHARGAN	oz	3 00
ICHTHORFORM	oz	1 00
ICHTHYOL, 1-oz vials	oz	32
¼s	oz	4 25
½s	oz	4 10
1s	oz	4 00
INDIGO, Manila, extra.	lb	75
IODIPIN (10% Iodized Sesame oil)	oz	28
IODINE, Bromide, 1-oz vials, M.C.W.	oz	47
Chloride, 1-oz vials, M.C.W.	oz	52
Resublimed, 1-oz vials, M. C. W.	oz	35
Resublimed, M. C. W.	lb	3 43
Resublimed, N. Y. Q.	lb	3 33
Resublimed, 1-lb bot., P. W. R.	lb	3 33
Burnham's, soluble.	oz	1 00
IODOFORM, bulk, M. C. W.	lb	3 85
Iodoform, 1-lb bot, N. Y. Q.	lb	3 83
Iodoform, 1-lb bots., P. W. R.	lb	3 83
Cryst. or powd	oz	34
Deodorized.	oz	54
IODOL.	oz	1 25
IRON, Acetate, dry, 1-oz vials, M.C.W.	oz	24
Acetate, liquor.	lb	44
Albuminate.	oz	20
Ammoniated, M. C. W.	lb	44
And Ammonium Cit	lb	75
Arseniate, 1-oz vials.	oz	18
By Hydrogen	lb	60
Carbonate, precipitated.	lb	18
Carbonate, proto.	lb	42
Carbonate, saccharated.	lb	45

Chloride, 1-oz vials.	oz	8
Chloride, crystal.	lb	34
Chloride, sol. for tincture.	pt	35
Citrate, soluble, 1-oz vials.	oz	13
Citrate, soluble, N. Y. Q.	lb	75
Citrate, soluble, M.C.W.	lb	75
Citrate and quinine, N. Y. Q.	lb	2 00
Citrate and Quinine, sol., M. C. W.	lb	2 00
Citrate and Quinine with Strych., M.C.W. lb		2 55
Citrate and Quinine with Strych., M.C.W. oz		26
Citrate and Strychnine, 1-oz vials, M.C.W. oz		13
Ferrocyanide, 1-oz vials, M. C. W.	oz	10
Ferrocyanide, M. C. W.	lb	65
Filings.	lb	16
Glycerino Phosphate.	oz	32
Hypophosphite, 1-oz vials, M. C. W.	oz	20
Iodide, 1-oz vials, M. C. W.	oz	36
Lactate, 1-oz vials, M. C. W.	oz	10
Lactophosphate, 1-oz vials, M. C. W.	oz	19
Nitrate, sol., U. S. P., M. C. W.	lb	34
Oxide, black.	lb	49
Oxide, brown, com'l	lb	22
Oxide, brown, pure	lb	74
Peptonized	oz	24
Phosphate, precipitate.	lb	39
Phosphate, U. S. P., scales, N. Y. Q.	oz	13
Phosphate, U. S. P., scales, N. Y. Q.	lb	75
Pyrophosphate, soluble, N. Y. Q.	lb	75
Pyrophosphate, U. S. P., 1880, N. Y. Q.	oz	13
Pyrophosphate, U. S. P., 1880, N. Y. Q.	lb	75
Reduced (Quevenne's)	lb	58
Reduced (Quevenne's)	oz	10
Salicylate, 1-oz vials, M. C. W.	oz	15
Subsulphate, M. C. W.	oz	6
Subsulphate, M. C. W.	lb	36
Subsulphate, sol., M. C. W.	lb	23
Succinate	oz	90
Sulphate, dried.	lb	20
Sulphate, gran., pure.	lb	18
Sulphate, pure, cryst., M. C. W.	lb	20
Sulpho-Carbolate, 1-oz vials, M. C. W.	oz	13
Tannate, 1-oz vials, M. C. W.	oz	22
Tartrate and Ammonia, M. C. W.	oz	11
Tartrate and Ammonia, M. C. W.	lb	72
Tartrate and Potassium, M. C. W.	oz	10
Tartrate and Potassium, scale, M. C. W.	lb	58
Tersulphate, sol., U. S. P.	lb	40
Valerianate.	oz	22
IODOTHYRINE.	oz	3 40
ISINGLASS, American	lb	1 05
Russian.	lb	5 25
KAMALA.	lb	65
Powd.	lb	75
KAOLIN.	lb	10
KERATIN (Pepsinized), ⅛s	oz	3 53
KOUSSO.	lb	75
Powd.	lb	75
KRYOFINE.	oz	1 00
LACTUCARIUM	oz	80
LACTOPHEPIN.	oz	1 00
LANOLIN.	lb	80
Lanae Adeps, 1-lb cans, B. J. D.	lb	35
Lanae, British.	lb	35
LANUM (Adeps Lanae Hydrosus)	lb	40
LARD, Benzoated, 5-lb cans.	lb	27
LARGIN	oz	1 75
LEAD. Acetate, med. crys. or gran.	lb	33
Acetate, white.	lb	18
Acetate, white, powd.	lb	25

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Acetate, purified, gran., 1-lb cart., M.C.W.	lb	33	Chloride, ½-lb cans.....	doz	65
Bromide.	oz	24	Chloride, ¼-lb cans.....	doz	45
Carbonate.....	lb	12	LITHARGE.	lb	12
Chloride, 1-oz vials.....	oz	11	LITHIUM, Benzoate, 1-oz vials, M.C.W.....	oz	15
Chromate, M. C. W.....	lb	19	Bromide, 1-oz vials, M. C. W.....	oz	24
Iodide, 1-oz vials, M. C. W.....	oz	27	Carbonate	oz	17
Nitrate, 1-lb boxes, M. C. W.....	lb	23	Citrate, 1-oz vials, M. C. W.....	oz	17
Nitrate, chemically pure, M. C. W.....	lb	40	Iodide	oz	37
Oxide, chemically pure, M. C. W.....	lb	84	Salicylate, 1-oz vials, M. C. W.....	oz	15
Oxide	lb	84	LITMUS.	lb	50
Subacetate, sol.	lb	35	Paper.	doz	50
Sulphate, pure, M. C. W.....	lb	63	LODESTONE.	lb	75
Tannate, 1-oz vials, M. C. W.....	oz	24	LONDON PURPLE.	lb	20
LEAVES, Aconite, German.....	lb	30	LOSOPHAN.	oz	80
Aconite, powd.	lb	30	LUPULIN, German.	lb	75
Aconite, pressed.	oz	25	LYCOPodium.	lb	75
Angelica, pressed.	oz	25	LYCETOL.	oz	4 25
Bay, bulk.	lb	15	LYSOL, 1-gal. jugs.....	gal	4 00
Belladonna, English, bts.....	lb	25	Pints.	doz	8 00
Belladonna.	lb	30	MACE.....	lb	75
Belladonna, powd.	lb	35	Powd.	lb	75
Belladonna, pressed.	oz	35	MADDER, Dutch.	lb	15
Blessed Thistle, pressed.....	oz	34	MAGNESIUM, Benzoate, Mallinckrodt's.....	oz	24
Borage, pressed.	oz	35	Bromide, Mallinckrodt's.	oz	25
Buchu, long.	lb	55	Calcined, Jennings', 1-lb cans.....	lb	85
Buchu, short.	lb	40	Calcined, K. & M.'s, 1-lb cans.....	lb	75
Buchu, powd.	lb	40	Calcined, K. & M.'s, heavy.....	lb	80
Buckbean, pressed	oz	30	Carbonate, Jennings', 2-oz.....	lb	35
Cocoa.....	lb	45	Carbonate, Jennings', 4-oz.....	lb	35
Conium.	lb	30	Carbonate, K. & M.'s, 1-oz.....	lb	27
Conium, powd.	lb	35	Carbonate, K. & M.'s, 2-oz.....	oz	23
Conium, pressed.	oz	30	Carbonate, K. & M.'s, 4-oz.....	lb	23
Coltsfoot, pressed.	oz	25	Carbonate, K. & M.'s, small sq.....	lb	60
Damiana.....	lb	30	Carbonate, powd., in 65-lb bbls.....	lb	13
Digitalis, pressed.	oz	35	Carbonate, powd., in 10-lb boxes.....	lb	16
Digitalis.	lb	35	Citrate, dry, English.....	lb	65
Digitalis, powd.	lb	35	Citrate, sol.	doz	1 75
Eucalyptus.	lb	20	Glycerinophosphate	oz	44
Grindelia Robusta	lb	25	Hypophosphite, 1-oz vials, M. C. W.....	oz	20
Grindelia Squarosa	lb	40	Hypophosphite, M. C. W.....	lb	1 69
Hemlock, pressed.	oz	30	Hypophosphite	oz	20
Henna.	lb	50	Iodide, M. C. W.....	oz	47
Henna, powd.	lb	55	Sulphite, Mallinckrodt's	lb	49
Henbane.	lb	30	MANGANESE, Black, Oxide	lb	8-10
Henbane, powd.	lb	30	Phosphate, M. C. W.....	oz	18
Henbane, pressed, oz.....	lb	30	Carbonate, 1-oz vials, M. C. W.....	oz	14
Jaborandi.	lb	35	Chloride, 1-oz vials, M. C. W.....	oz	14
Jaborandi, powd.	lb	40	Hypophosphite, 1-oz vials, M. C. W.....	oz	20
Laurel.	lb	25	Hypophosphite	oz	20
Lovage, pressed, oz.....	lb	30	Iodide, 1-oz vials, M. C. W.....	oz	47
Lungwort, pressed, oz.....	lb	34	Peptonized	oz	29
Marjoram, sweet	lb	36	Phosphate, M. C. W.....	oz	18
Rosemary, bulk.	lb	20	Sulphate, 1-oz vials, M. C. W.....	oz	9
Rosemary, pressed, oz.	lb	25	MANNA. Large flake	lb	1 15
Sage, oz.	lb	25	Small flake	lb	75
Savin, pressed, oz.....	lb	25	MENTHOL	lb	3 40
Senna, Alexandria, garbeled.....	lb	30	Cryst., 1-oz vials, Mallinckrodt's.....	oz	30
Senna, Alexandria, powd.	lb	30	Crystallized	lb	3 50
Senna, Tinnelly, select.....	lb	25	MERCURY. Chloride	lb	99
Stramonium, powd.	lb	30	Ammoniate, d white precip.	lb	1 25
Stramonium, pressed, oz.....	lb	25	Bisulphate	lb	76
Thyme, pressed, oz.....	lb	25	Cyanide	oz	28
Uva, Ursi.	lb	20	Iodide, green, 1-oz vials, M. C. W.....	oz	24
Witch Hazel, pressed, oz.....	lb	25	Iodide, Red	oz	26
LEECHES.	ea	10	Iodide, red, 1-oz vials, M. C. W.....	oz	26
2 dozen lots.....	ea	8	Iodide, yellow, 1-oz vials, M. C. W.....	oz	24
LEPTANDRIN.	oz	35	Nitrate, proto., 1-oz vials, M. C. W.....	oz	27
LIME, Chloride, 35-lb cans.....	lb	5	Nitrate, solution, 1-oz vials.....	oz	27
Chloride, in bbls of 350 lbs.....	lb	2 ¾	Oxide, black, 1-oz vials.....	oz	18
Chloride, lb cans	doz	90	Oxide, red (red precip.).....	lb	1 20

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Oxide, yellow, 1-oz vials	oz	19	Cajuput (21-oz bottles).....	lb	1 10-1	35
Salicylate, M. C. W.....	oz	27	Calamus.	oz		45
Subsulphate, 1-oz vials.	oz	15	Camphor, E. I.	lb		45
Subsulphate. . .	lb	8 06	Caraway, seed.	lb	2	25
Sulphuret, black.	lb	78	Cardamon. .	oz	2	50
White Chalk, 1-lb cartons	lb	46	Cassia	lb	1 85-2	00
METHYL, SALICYLATE.	lb	80	Castor, Baker's A. A.....	gal	1 38-1	50
METHYLENE. Blue Medicinal	oz	45	Castor, Marsh's	gal	1 34-1	45
MILK SUGAR, Cryst.....	lb	33	Castor, 2-oz bottles.....	doz		85
Powdered, bulk	lb	23	Castor, 4-oz bottles.....	doz	1	25
M. C. W., 1-lb cartons	lb	25	Castor, 6-oz bottles.....	doz	1	75
MORPHINE. Sulphate, 1/8s, 1-oz box, M.			Castor, 8-oz bottles.....	doz	2	25
C. W.	oz	3 70	Castor, 12-oz bottles.....	doz	2	50
Sulphate, 1 1/8s, 2 1/2-oz box, M. C. W.....	oz	3 65	Castor, 16-oz bottles.....	doz	3	75
Sulphate, 1-oz vials, M. C. W.....	oz	3 45	Cedar	lb	60-100	
Sulphate, 5-oz can, M. C. W.....	oz	3 40	Cedrat. .	oz		40
Sulphate, 1 1/8s, 1-oz box, N. Y. Q.....	oz	3 70	Celery. .	oz	1	40
Sulphate, 1 1/8s, 2 1/2-oz box, N. Y. Q.....	oz	3 65	Chamomile, German.	oz	5	00
Sulphate, 1-oz vials, N. Y. Q.....	oz	3 45	Chamomile, Roman.	oz	1	75
Sulphate, 1/8s, 2 1/2-oz box, P. W. R.....	oz	3 70	China, Nut.	gal	1	00
Sulphate, 1-oz bot, P. W. R.....	oz	3 45	Cinnamon, Ceylon.	oz		90
In 10-oz lots, 10c oz less.			Citronella	lb	75-85	
Morphia, Acetate, 1/8s, M. C. W.....	oz	4 05	Cloves	lb	1 40-1	65
Morphia, Muriate, 1/8s, M. C. W.....	oz	4 00	Cocanut	lb	20-25	
Morphia, Valerianate, 1/8s, M. C. W.....	oz	5 10	Codliver, White, Norwegian.....	gal	1	65
Other salts or Morphine subject to market			Codliver, white, Norwegian, 5-gal cans.....	gal	1	50
price based on above.			Cognac, green.	oz	2	50
MOSS, Iceland. .	lb	18	Cologne. .	oz		50
Irish. .	lb	15	Copaiba.....	lb	1	75
Irish, bleached.	lb	20	Coriander. .	oz		90
MUSK, Chinese	oz	40	Cotton Seed (salad), 5-gal can.....	gal		95
Tonquin, grain	dr	3 25	Cotton Seed (salad), 1-gal can.....	gal	1	20
MUSTARD, Colman's, 4-oz cans.....	doz	1 75	Croton, 24-oz bots.....	lb	1 50-1	65
Colman's, 5-lb cans	lb	50	Croton	oz		20
Ground, Domestic, 5-lb cans.....	lb	18	Cubebs	lb	2 00-2	25
NAPHTHALIN, Balls.	lb	5-7	Ergot, Keith's.	oz		57
Resublimated	lb	27	Erigeron, Keith's.	oz		38
Pure, 1-lb cartons, M. C. W.....	lb	27	Erigeron	lb	2	75
NAPHTHOL, Alpha.	oz	30	Eucalyptus	lb		85
Beta. .	oz	10	Fennel Seed	lb	2	25
NICKEL. Bromide	oz	32	Fusil, purified.	lb		80
Bromide, 1-oz vials, M.C.W.....	oz	29	Geranium, Rose, Chris.....	oz		75
Nickel and Ammonia Sulphate, M. C. W..	lb	34	Hemlock .	lb		85
Sulphate, 1-oz vials, M. C. W.....	oz	9	Hydrocarbon. .	gal	1	25
Sulphate	oz	10	Jasmin, alcoholic.	lb	3	00
NOSOPHEN.	doz	4 50	Juniper Berries.	lb	1 25-1	50
NUTGALLS, Aleppo.	lb	30	Juniper, wood.	lb		75
Aleppo, ground.	lb	35	Lard. .	gal	1	10
Aleppo, powd.	lb	35	Laurel, expressed.	lb		60
NUTMEGS, Macassar, large.....	lb	60	Lavender, Flowers	lb	3	85
Penang, powd.	lb	65	Lavender, Garden	lb	1	25
NUTS, Areca	lb	30	Lemon	lb	2	00
Areca, powd.	lb	40	Lemon, Sanderson's	lb	2	25
Kola. .	lb	35	Lemon, Grass	lb	2	25
Kola, powd.	lb	40	Linseed, raw	gal		74
NUX VOMICA.	lb	25	Linseed, raw, case	gal		67
Powdered or rasped.....	lb	25	Linseed, boiled	gal		74
OAKUM	lb	15	Linseed, boiled, case	gal		69
Surgeon's.	lb	20	Mace, expressed.	lb	1	75
OIL, Almonds, Bitter, true, Merck's.....	lb	6 59	Male Fern, ethereal.	oz		35
Almonds, Bitter, Allen's.....	oz	75	Myrbane. .	lb		40
Almonds, Sweet, Allen's.....	lb	75	Mullein.....	oz		45
Almonds, Sweet	lb	50-65	Musk, alcoholic.	oz	1	00
Amber, rectified.	lb	60	Mustard, essential.	oz		50
Anise. .	lb	2 00-2	Mustard, expressed.	gal		90
Bay Leaves, true.....	oz	35	Neatsfoot, No. 1.	gal		90
Bay Leaves	lb	3 75-4	Neroli, Petal.	oz	3	00
Benne.....	gal	1 20	Neroli, Bigarade.	oz	5	75
Bergamot	lb	4 75-5	Neroli, Petit Grain.	oz		55
Birch Tar, rectified.....	lb	1 25	Nutmegs, essential.	oz		35
Cade.....	lb	50	Olive, pure, Malaga.....	gal	1	25

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Olive, California. gal	3 00	PEPPER, black, Singapore, sifted.....lb	30
Olive, ½-gals. gal	3 25	Black, powd. lb	30
Olive, small doz	3 75	White. lb	40
Olive, large. doz	7 50	White, powd. lb	40
Olive, imported. gal	2 00-2 10	PEPSIN, pure, U. S. P.....lb	4 50
Orange, bitter. lb	4 50	Powd. or scales. lb	4 50
Orange, sweet lb	3 25	Powd., Ph. G. III.....oz	25
Origanum, pure. lb	60	PEPTONE, Merck's, dry, from meat.....oz	34
Origanum, Chris. lb	1 85	PETROLATUM, 1-lb cans.....doz	2 00
Palm. lb	25	50-lb pails. lb	7
Patchouly.....oz	75	25-lb pails. lb	7½
Pennyroyal lb	4 00	10-lb cans. lb	9
Pepper, black. oz	20	5-lb cans. lb	10
Peppermint, Hotchkiss lb	3 25-3 50	Snow White, 50-lb pails.....lb	15½
Peppermint, Wayne Co. lb	2 75-3 00	Snow White, 25-lb pails.....lb	16½
Peppermint, Western lb	2 75-3 00	Snow White, 10-lb cans.....lb	18
Pimento. oz	30	Snow White, 5-lb cans.....lb	25
Pinus, Sylvestris, German. lb	1 50	Snow White, 1-lb cans.....lb	30
Pinus, Pumilio. lb	4 50	PHENACETINE. oz	33
Pinus Pumilio. oz	40	PHENILINE. oz	1 00
Rhodium oz	35	PHENOLPHTHALEIN oz	34
Rose, Kizanlik oz	6 25-6 50	PHOSPHORUS, 1-lb cans.....lb	85
Rosemary, flowers. lb	1 25-1 50	¼-lb cans.....lb	95
Rue.....oz	40	¼-lb cans.....lb	1 05
Sandalwood, English. lb	5 50	Amorphous. lb	1 44
Sandalwood, German. lb	3 00-3 20	PIPERAZIN, Schering's 10-gm vials.....bot	1 50
Sassafras. lb	90-1 00	½-oz and 1-oz.....oz	4 25
Savin. lb	1 75	PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62
Spearmint lb	3 25	PIPE CLAY. lb	12
Sperm.....gal	1 00	PITCH, Burgundy lb	15
Spike. lb	35	PITH, Sassafras. lb	1 50
Spruce.....lb	85	PLATINUM and Barium Cyanide, cr.....gr	15
Tansy lb	5 50	And Potassium Chloride, 15-gr vials.....ea	80
Tar.....lb	25	Chloride oz	18 00
Thyme, white. lb	1 50	Chloride, solution, 10%.....oz	2 82
Turpentine, pure. lb	55	PODOPHYLLIN oz	30
Wine, light. oz	40	POPPY HEADS, German. lb	30
Wine, heavy. oz	50	POTASH, Babbitt's, 4 doz in case.....case	3 40
Wintergreen lb	4 00-4 25	Caustic, pure, by alcohol.....lb	60
Wormseed.....lb	3 75-4 00	Caustic, white. lb	37
Wormwood lb	5 25	Caustic, 10-lb cans.....lb	10-12
Ylang Ylang. oz	4 50	Solution (liq. potass.) lb	35
OINTMENT, Basilicon. lb	65	POTASSIUM. Acetate, M. C. W., 1-lb.....lb	42
Citrine. lb	65	Antimonate lb	1 09
Iodine.....lb	1 25	Arsenate, 1-oz vials oz	14
Mercurial, ½ m.....lb	65	Bicarbonate, cryst., M. C. W.....lb	20
Mercurial, ⅓ m.....lb	55	Bicarbonate, granulated, M. C. W.....lb	20
Stramonium. lb	75	Bicarbonate, powd. lb	20
Tar.....lb	50	Bichromate lb	18-20
Zinc, benzoated. lb	65	M. C. W. lb	34
Zinc, oxide. lb	65	Bromide, crys. or gran., M. C. W.....lb	30
OPIUM, powd. or gran., P. W. R.....lb	9 46	Carbonate, purified, M. C. W.....lb	41
ORTHOFORM. oz	1 40	Carbonate, bulk. lb	15
PANCREATIN. Pure oz	44	Caustic, pure lb	37
Pure, scales, P. D. & Co.....oz	50	Caustic, C. P. lb	2 59
PAPAIN, Boehringer. oz	75	Chlorate, cryst. lb	16-18
PARAFFINE, refined. lb	12-15	Chlorate, gran., pure, M. C. W.....lb	22
PARALDEHYDE lb	99	Chlorate, powd. lb	16-18
.....oz	14	Chromate, yellow, neutral. lb	40
PARIS GREEN. lb	38-42	Citrate, M. C. W.....lb	66
PASTILLES, Fumigating, black.....lb	50	Cyanide, fused, M. C. W.....lb	45
Fumigating, red lb	50	Cyanide, C. P. 99%.....lb	52
PEARL ASH. lb	8-10	Cyanide, Miner's, 10-lb tin.....lb	28
PEEL, Orange, sweet, ground.....lb	20	Ferricyanide, chem. pure, M. C. W.....lb	1 04
Orange, bitter, coarse.....lb	20	Ferrocyanide, pure lb	59
Orange, bitter, powdered.....lb	20	Glycerinophosphate.....oz	26
Orange, sweet, quarters.....lb	20	Hypophosphite, M. C. W.....lb	99
PELLETIERINE, Sulphate, 15-gr vial.....	1 75	Iodide, M. C. W., 1-lb boxes.....lb	2 52
Tannate, 15-gr vial 55	35	Iodide, N. Y. Q., 1-lb boxes.....lb	2 52
		Iodide, cryst. or gran., 1-lb boxes, P.W.R.lb	2 52

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Nitrate, cryst. lb	10-12	RESORCINOL (Resorcin) M. C. W.....lb	1 30
Nitrate, granulated. lb	10-12	Resorcinol (Resorcin) M. C. W.....oz	17
Nitrate, chemically pure, M. C. W.....lb	30	ROOT, Abscess, pressed, lb.....lb	40
Oxalate, neutral. lb	28	Aconite, powd.....lb	35
Permanganate, cryst., 1-oz vials.....oz	8	Aconite, pressed.....lb	32
Permanganate, large cryst., pure, M.C.W..lb	27	Copaiba. lb	1 50
Permanganate, small cryst.....lb	25	Scamony oz	40
Phosphate, 1-oz vials.....oz	11	Alkanet lb	25
Phosphate lb	64	Alkanet, powd.....lb	30
Prussiate, red. lb	65	Angelica, pressed lb	20
Prussiate, yellow. lb	35	Angelica, powd lb	25
Sulphate, cryst. or powd.....lb	16	Arnica, pressed lb	35
Sulphate, chemically pure.....lb	60	Belladonna, pressed, lb. lb	25
Sulphide (Liver Sulphur).....lb	24	Belladonna, powd.....lb	28
Tartrate (soluble Tartar).....lb	59	Berberis Aquif, pressed, lb.....lb	45
POWDER, Antimonial. lb	85	Beth, pressed, lb.....lb	30
Aromatic. lb	1 25	Beth, powd lb	35
Carbolic Acid, disinfecting.....doz	1 50	Blackberry, pressed, lb.....lb	30
Chalk, aromatic. lb	75	Blood, pressed, lb.....lb	30
Chalk, compound. lb	75	Blood, powd.....lb	35
Chalk and Opium. lb	2 50	Blue Flag, pressed lb	25
Composition, 2-oz papers.....lb	35	Burdock, pressed, lb. lb	25
Dover's lb	1 70	Burdock, powd.....lb	25
Insect, Buhach, 6-lb cans.....lb	60	Calamus, peeled lb	30
Insect, Dalmatian. lb	25-30	Calamus, white, peeled and split.....lb	50
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Calamus, powd.....lb	35
Jalap, comp. lb	1 00	Cohosh, black, pressed. lb	25
Licorice, comp. lb	25	Cohosh, black, powd. lb	25
Licorice, comp., 2-oz packages.....doz	75	Cohosh, blue, pressed, lb.....lb	25
Rhubarb, comp. lb	1 50	Cohosh, blue, powd.....lb	25
Tooth. lb	50	Colchicum lb	28
PROPYLAMIN, 10% solution oz	55	Colchicum, powd lb	35
Hydrochlorate, 1/8-oz vials. oz	3 50	Columbo, foreign. lb	25
PROTARGOL. oz	1 25	Columbo, powd.....lb	25
PULVIS ANTIMONIALIS. lb	85	Comfrey, pressed, lb. lb	25
PYOKTANIN, Blue or Yellow oz	1 50	Comfrey, powd.....lb	25
PYRIDINE oz	32	Cranesbill, pressed, lb.....lb	25
QUICKSILVER. lb	80	Culvers, pressed, lb.....lb	25
QUINACETINE. oz	85	Culvers, powd lb	30
QUINALGIN. oz	1 25	Dandelion, Am., pressed, lb.....lb	40
QUININE, Alkaloid, 1-oz vials, M.C.W...oz	58	Dandelion, powd lb	40
Bisulphate, 1-oz vials, M.C.W.....oz	28	Dwarf Elder, pressed, lb.....lb	35
Bisulphate, 5-oz cans, M.C.W.....oz	26	Elecampane, pressed, lb. lb	25
Citrate, 1-oz vials, M.C.W.....oz	57	Elecampane, powd lb	25
Muriate, 1-oz vials, M.C.W.....oz	51	Gelsemium, pressed, lb.....lb	25
Phosphate, 1-oz vials, M.C.W.....oz	55	Gelsemium, powd lb	25
Salicylate, 1-oz vials, M.C.W.....oz	54	Gentian lb	18
Sulphate, 1-oz cans, M.C.W.....oz	28	Gentian, ground lb	20
Sulphate, 5-oz cans, M.C.W.....oz	25	Gentian, powd lb	20
Sulphate, 25-oz cans, M.C.W.....oz	21	Ginger, African. lb	17
Sulphate, 50-oz cans, M.C.W.....oz	20	Ginger, African, powd lb	18
Sulphate, 100-oz cans, M.C.W.....oz	18	Ginger, Jamaica, bleached. lb	27
Sulphate, 1-oz cans, N. Y. Q.....oz	28	Ginger, Jamaica, bleached, powd.....lb	30
Sulphate, 5-oz cans, N. Y. Q.....oz	25	Ginseng lb	8 50-10 00
Sulphate, 25-oz cans, N. Y. Q.....oz	21	Golden Seal lb	2 25
Sulphate, 100-oz cans, N. Y. Q.....oz	18	Golden Seal, powd lb	2 25
Sulphate, 1-oz cans, P. W. R.....oz	28	Hellebore, black, pressed.....lb	25
Sulphate, 5-oz cans, P. W. R.....oz	25	Hellebore, black, powd.....lb	25
Sulphate, 25-oz cans, P. W. R.....oz	21	Hellebore, white, pressed, lb.....lb	25
Sulphate, 100-oz cans, P. W. R.....oz	18	Hellebore, white, powd.....lb	25
Tannate, Neutral oz	38	Indian Hemp, black, pressed, lb.....lb	35
Tannate, 1-oz vials, M.C.W.....oz	37	Indian Hemp, black, powd lb	40
Valerianate, 1-oz vials, M.C.W.....oz	57	Indian Hemp, white, pressed lb	25
QUINOLINE oz	45	Indian Hemp, white, powd lb	30
Tartarate oz	45	Ipecac, Rio, powd.....lb	2 50
QUINIDINE, N. Y. Q., 1-oz vial.....oz	85	Jalap lb	30
Sulphate, N. Y. Q., 1-oz vial.....oz	75	Jalap, powd lb	35
RED SAUNDERS. lb	12	Kava Kava lb	50
RESIN, Jalap oz	54	Ladies' Slipper, pressed, lb.....lb	75
		Licorice, select lb	16

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Licorice, pipestem	lb	18	ROUGE, Jewelers'	lb	50
Licorice, cut, Russian	lb	20	SACCHARIN	tin	35
Licorice, powd	lb	16-20	SAFFRON, American	lb	60
Mandrake, pressed, lb.....	lb	30	Spanish.	oz	80
Mandrake, powd	lb	35	Spanish	lb	10 50
Marshmallow, cut	lb	34	SAL, Acetosella	lb	30
Marshmallow, powd	lb	35	Epsom	lb	2½-5
Musk	lb	30	Glauber	lb	1½-4
Orris, Florentine	lb	25	Nitre	lb	10-12
Orris, Florentine, Fingers.....	lb	1 25	Nitre, granulated.	lb	10-12
Orris, Florentine, granulated.....	lb	35	Nitre, powd.	lb	10-12
Orris, Florentine, powd.....	lb	30	Prunelle	lb	45
Pareira Brava, pressed	lb	34	Rochelle.	lb	28-30
Pink.	lb	85	Soda.	lb	3-5
Pink, powd.	lb	90	Tartar.	lb	15
Pleurisy, pressed	lb	25	SALICINE	oz	37
Poke, pressed	lb	25	.....	lb	4 60
Poke, powd	lb	20	SALIPYRINE	oz	1 00
Pond Lily, white, pressed	lb	40	SALOL, Mallinckrodt's.....	oz	15
Pond Lily, white, powd	lb	40	Salol, Mallinckrodt's, cartons	lb	1 17
Pond Lily, yellow, pressed	lb	30	SALOPHEN	oz	1 00
Pond Lily, yellow, powd	lb	35	SANTONIN, bulk, M.C.W.	lb	14 09
Rhatany	lb	30	1-oz vials, M.C.W.	oz	99
Rhatany, powd	lb	35	SEED, Angelica	lb	25
Rhubarb, East India	lb	75	Anise, Italian	lb	20
Rhubarb, East India, powd	lb	75	Anise, Italian, powd.....	lb	25
Rhubarb, cut in cubes, No. 1.....	lb	1 25	Anise, Star	lb	45
Rhubarb, cut in cubes, No. 2.....	lb	1 00	Bird, mixed, bulk.	lb	8
Rhubarb, cut in fingers, No. 1.....	lb	1 50	Bird, mixed, boxes.	doz	1 00
Rhubarb, cut in fingers, No. 2.....	lb	1 25	Bird, mixed, cases, 30 pks.....		2 25
Salep, powd	lb	1 00	Burdock	lb	25
Sarsaparilla, American	lb	35	Canary	lb	9-10
Sarsaparilla, American, powd	lb	35	Caraway, Dutch.	lb	15
Sarsaparilla, Honduras	lb	65	Caraway, powd.	lb	17
Sarsaparilla, Honduras, ground.....	lb	65	Cardamon, Malabar.	lb	1 00
Sarsaparilla, Honduras, powd	lb	65	Cardamon, Mangalor, bleached.....	lb	1 25
Sarsaparilla, Mexican	lb	20	Cardamon, powd.	lb	1 00
Sarsaparilla, Mexican, ground	lb	25	Celery	lb	25
Sarsaparilla, Mexican, powd	lb	25	Colchicum.	lb	50
Senega, pressed	lb	75	Colchicum, powd.	lb	55
Senega, powd.	lb	80	Conium	lb	25
Silkweed, pressed	lb	28	Coriander, German.	lb	14
Skunk Cabbage, pressed	lb	30	Coriander, German, powd	lb	20
Skunk Cabbage, powd	lb	35	Cumin	lb	18-20
Snake, Canada, pressed.....	lb	65	Dill	lb	25
Snake, Virginia	lb	65	Fennel.	lb	18
Snake, Virginia, powd	lb	70	Fennel, powd.	lb	20
Spikenard, pressed	lb	72	Flax; recleaned.	lb	5½-6
Spikenard, powd	lb	30	Flax, ground.	lb	5½-6
Squills, white, sliced.	lb	20	Flax Oil Cake	lb	2½-3½
Squills, powd	lb	60	Foenugreek, powd	lb	12
Stillingia, pressed	lb	25	Hemp, recleaned	lb	6½-8
Stillingia, powd	lb	30	Henbane	lb	35
Stone, pressed	lb	25	Larkspur.	lb	55
Sweet Flag, pressed	lb	25	Lobelia.....	lb	60
Turkey Corn	lb	28	Lobelia, powd.	lb	65
Unicorn, true, pressed	lb	35	Millet, American.	lb	6-8
Unicorn, true, powd	lb	40	Mustard, black, Trieste	lb	10-12
Unicorn, false, pressed.....	lb	40	Mustard, white	lb	10-10
Unicorn, false, powd	lb	45	Poppy Blue	lb	16
Valerian, English, bulk.....	lb	35	Pumpkin	lb	22
Valerian, English, powd	lb	35	Rape, California.	lb	6-8
Valerian, German	lb	30	Sabadilla	lb	35
Valerian, German, powd	lb	30	Sabadilla, powd	lb	30-35
Yellow Dock	lb	25	Stavesacre	lb	40
Yellow Dock, ground	lb	30	Stavesacre, powd	lb	45
Yellow Dock, powd	lb	30	Stramonium	lb	25
Zedoary	lb	30	Stramonium, powd	lb	30
ROSIN, No. 1.	lb	6-8	Sunflower	lb	15
Barrel.		7 75	Watermelon	lb	25
			Worm, American	lb	25

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Worm, American, powd	lb	25	Salicylate, 1-lb box, P. W. R.....	lb	50
Worm, Levant	lb	35	Santoninate	oz	89
Worm, Levant, powd	lb	40	Succinate	oz	64
SEIDLITZ MIXTURE	lb	28-30	Sulphate, Glauber Salts.....	lb	3-5
SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, dried	lb	18-20
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphite, crystals	lb	10
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphite, granulated	lb	18
Lactate	oz	1 04	Sulphite, dry	lb	22
Nitrate, cryst., 1-oz vials, M. C. W.....	oz	54	Tartrate	lb	64
Nitrate, cones, 1-oz vials.....	oz	67	SOLUTIONS, Donovan's	lb	34
Nitrate, fused (Lunar caustic), 1-oz vials, M. C. W.	oz	57	Fowler's	lb	30
Nitrate, cryst., 1-oz vials, P. W. R.....	oz	54	Goulard's	lb	35
Nitrate, cryst., 1-lb vials, P. W. R.....	lb	8 50	Nitrate, Iron	lb	50
Nitrate, fused, No. 2, 1-oz vials.....	lb	44	Mercury, Nitrate	oz	20
SNUFF, Garrett's, 1-oz tins.....	doz	60	Monrel's	lb	50
Garrett's, 1 1/3-oz tins.	doz	1 10	Tin, Chloride	lb	35
Garrett's, 3 1/3-oz tins.....	doz	1 75	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Garrett's, 6-oz bots.....	doz	3 25	Somatose, Ferro, 2-oz tins.....	doz	10 50
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Somatose, 2-oz tins.....	doz	8 25
Rappee	lb	65	Somatose, 1 1/4-lb tins.....	lb	5 25
Rappee, 3 1/3-oz bots.....	doz	2 00	Somatose, 1 1/2-lb tins.....	lb	5 00
Scotch, Lorillard's	lb	65	SOZOIODOL, Mercury	oz	1 15
Scotch, Lorillard's	doz	2 00	Potassium	oz	75
Scotch, Garrett's Bladders.....	lb	55	Sodium	oz	80
SOAP, Castile, Conti's, white, box 14c less..	lb	17	Zinc	oz	1 10
Castile, mottled, box 8 1/2c; less.....	lb	12	SPARTEINE, Sulphate, 1/8s.....	oz	83
Castile, powdered, white.....	lb	35	Sulphate, 15-gr. vials.....	ea	12
Green, German	lb	25	SPERMACEI, in cakes.....	lb	42-45
Opodeldoc	lb	65	SPIRIT, Ammonia	lb	75
SODA, Ash.	lb	2 1/2-5	Ammonia, aromatic.	lb	85
Caustic, Sticks	lb	34	Camphor	lb	75
Caustic, com., drums.....	lb	3-4	Chloroform, U. S. P.....	lb	75
Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2	Lavender	lb	60
Caustic, purified, fused.....	lb	40	Nitre, U. S. P., 1-lb bots.....	lb	65
Sal (carbonate) bbls., 1 1/4c.....	lb	3	Nitre, U. S. P., 4-lb bots.....	lb	58
Soda Silicate, dry	lb	35	Nutmeg. . .	lb	75
Soda Silicate, liquid.....	lb	15-25	Pimento. . .	lb	65
SODIUM, 1-oz vials, M. C. W.....	oz	25	Rosemary. . .	lb	65
Acetate, M. C. W., carton.....	lb	17	STEARIN	lb	20
Arsenate, 1-oz vials.....	oz	9	STONE, Pumice, select.....	lb	10
Arsenite, 1-oz vials, M. C. W.....	oz	10	Pumice, select, powd.....	lb	8-10
Benzoate, 1-oz vials, M. C. W.....	oz	11	Rotten	lb	12-15
Benzoate, 1-lb bots.	lb	56	Rotten, powd	lb	10
Benzoate, true fr. Gum Benzoin.....	oz	29	Soap, cut	lb	18
Bicarbonate, C. P., powd., M. C. W.....	lb	15	Soap, powd	lb	8
Bicarbonate, kegs, 3c.....	lb	4-5	STRONTIUM, Bromide, cryst., M. C. W.oz	oz	11
Bisulphite, dry, pure	lb	27	Carbonate, M. C. W.....	lb	34
Borate, neutral	oz	19	Hypophosphite, M. C. W.....	oz	29
Bromide, M. C. W.....	lb	34	Iodide, 1-oz vial, M. C. W.....	oz	30
Cacodylate	oz	84	Lactate	oz	16
Carbonate, pure cryst., 1-lb car., M. C. W.lb	lb	11	Muriate, M. C. W.....	lb	32
Carbonate, pure gran., 1-lb car., M. C. W.lb	lb	11	Nitrate, pure, dried	lb	59
Carbonate, dried, C. P., 1-lb car.....	lb	27	Salicylate, M. C. W.....	lb	83
Cinnamate	oz	59	Sulphate, M. C. W.....	lb	69
Citrate, M. C. W.....	lb	67	STYPTICIN	oz	6 50
Glycerophosphate, 75%	oz	24	STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.oz	oz	1 75
Glycocholate. . .	oz	1 04	Arsenate, 1/8-oz vials, M. C. W.....	oz	1 75
Hypophosphite, purified	lb	1 14	Bromide, 1/8-oz vials, M. C. W.....	oz	1 75
Hypophosphite, 1-oz vials	oz	15	Citrate, 1/8-oz vials, M. C. W.....	oz	1 75
Hyposulphite, 112-lb kegs.	lb	3	Crystals, 1/8-oz vials, M. C. W.....	oz	1 15
Hyposulphite, less	lb	5	Hypophosphite, 1/8-oz vials, M. C. W.....	oz	2 00
Iodide, 1-oz vials, M. C. W.....	oz	31	Muriate, 1/8-oz vials, M. C. W.....	oz	1 75
Iodide, M. C. W.....	lb	3 53	Nitrate, 1/8-oz vials, M. C. W.....	oz	1 75
Nitrate, cryst., C. P.....	lb	29	Phosphate, 1/8-oz vials, M. C. W.....	oz	1 80
Nitrate, gran., pure, 1-lb cartons.....	lb	18	Sulphate, 1/8-oz vials, M. C. W.....	oz	1 45
Phosphate, pure, recryst., bulk.....	lb	12	Sulphate, 1-oz vials, M. C. W.....	oz	1 25
Phosphate, gran., pure, M. C. W.....	lb	13	Sulphate, 1-oz vials, P. W. R.....	oz	1 25
Phosphate, dried, powd.....	lb	24	Crystals, 1-oz vials, N. Y. Q.....	oz	95
			Crystals, in bulk, N. Y. Q.....	oz	90

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Powdered, in bulk, N. Y. Q.....oz	85	THYMOL, 1-oz vials.....oz	27
Powdered, 1/8-oz vials, N. Y. Q.....oz	1 10	Pounds.....lb	3 10
Powdered, 1-oz vials, N. Y. Q.....oz	90	THYROIDIN.....oz	1 30
STYRAX, liquid.....lb	60	TIN, Chloride.....lb	53
SUGAR, burnt.....lb	25	Metallic, feathered.....lb	1 00
Grape.....lb	25	Muriate, solution.....lb	35
Milk, crystals.....lb	30	Oxide, white, pure.....lb	99
Milk, powd., bulk.....lb	23	TINCTURE, Aconite Leaves.....lb	65
Milk, powd., M.C.W., 1-lb cartons.....lb	25	Aconite Root.....lb	75
SULFONAL, 1-oz vials.....oz	1 35	Aconite Root, Fleming's.....lb	90
SULPHON-ETHYL-METHANE.....oz	60	Aloes.....lb	65
SULPHON-METHANE.....oz	50	Aloes and Myrrh.....lb	65
SULPHUR, California, ground, 110-lb bags.....lb	2	Arnica.....lb	65
Flowers.....lb	5	Asafoetida.....lb	65
Flowers, in bags.....lb	2 3/4-3	Belladonna.....lb	65
Iodide.....oz	38	Benzoin.....lb	75
Lac., precip.....lb	18	Benzoin, comp.....lb	75
Roll, bbl.....lb	2 3/4-5	Blood Root.....lb	65
Sicily, ground.....lb	5	Buchu.....lb	65
Strips.....lb	15	Cantharides.....lb	75
Washed.....lb	15	Capsicum.....lb	65
SUMAC.....lb	10	Cardamom.....lb	75
SYRUP, Ginger, U. S. P.....lb	65	Cardamom, comp.....lb	75
Hydriodic Acid.....lb	70	Catechu, comp.....lb	75
Iron Iodide.....lb	65	Cinchona, comp.....lb	75
Ipecac.....lb	60	Cinnamon.....lb	65
Lactucarium.....lb	1 00	Colchicum Root.....lb	75
Orange Peel.....lb	65	Colchicum Seed.....lb	75
Rhubarb.....lb	60	Columbo.....lb	60
Rhubarb, Aromatic.....lb	65	Conium.....lb	65
Rhubarb and Potash.....lb	65	Cubebs.....lb	65
Sarsaparilla.....lb	65	Digitalis.....lb	65
Sarsaparilla, comp.....lb	65	Ergot.....lb	75
Senna.....lb	65	Ergot, ethereal.....lb	80
Senega, U. S. P.....lb	65	Galls.....lb	60
Simple.....lb	35	Gelsemium.....lb	75
Squill.....lb	60	Gentian.....lb	60
Squill, comp.....lb	60	Gentian, comp.....lb	65
Stillingia, comp.....lb	60	Ginger.....lb	65
Tolu.....lb	60	Guaiaac.....lb	75
Wild Cherry.....lb	60	Guaiaac, ammoniated.....lb	75
Yerba Santa comp.....lb	65	Guaiaac, Dewees'.....lb	75
TALCUM, powdered.....lb	6-8	Hyoscyamus.....lb	65
Purified.....lb	20-25	Iodine.....lb	1 40
TAMARINDS, pound bottles.....lb	25	Iodine, colorless.....lb	1 40
Keg.....ea	4 50	Iodine, comp.....lb	1 40
Pulp.....lb	50	Iodine, Churchill's.....lb	1 75
TANNALBIN.....oz	85	Ipecac.....lb	80
TANNIN, 1-lb cartons, incl.....lb	85-90	Iron Acetate.....lb	65
1-oz cartons, incl.....oz	12	Iron Chloride.....lb	50
TANNIGEN.....oz	75	Iron Citro-Chloride.....lb	65
TANNOFORM.....oz	22	Jalap.....lb	65
TANNOPINE.....oz	75	Kino.....lb	75
Veterinary.....oz	25	Lobelia.....lb	60
TAR, Barbadoes'.....lb	25	Lobelia, ethereal.....lb	65
Coal.....gal	25	Myrrh.....lb	75
Pine, bulk.....gal	40	Myrrh and Capsicum.....lb	75
Pine, 1/2-lb cans.....doz	75	Nux Vomica.....lb	65
Pine, 1-lb cans.....doz	90	Opium.....lb	1 25
Pine, 2-lb cans.....doz	1 50	Opium, camphorated.....lb	60
Pine, gal cans.....doz	6 00	Opium, deodorized.....lb	1 30
TARTAR EMETIC, M. C. W.....lb	50	Orange Peel.....lb	65
TEREBENE, 1-lb bottles.....lb	79	Quassia.....lb	60
.....oz	14	Rhatany.....lb	60
TERPIN HYDRATE, cryst.....oz	9	Red Saunders.....lb	65
Pounds.....lb	55	Rhubarb.....lb	65
TERPINOL, Liquid.....oz	47	Rhubarb, Aqueous.....lb	60
THEOBROMINE, Alkaloid.....oz	90	Rhubarb, Aromatic.....lb	70
And Sodium Salicylate.....oz	60	Rhubarb, comp.....lb	65
THIOL, dry.....oz	1 00	Rhubarb, Sweet.....lb	65
Liquid.....oz	40	Rhubarb and Aloes.....lb	65

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Rhubarb and Senna.....lb	65
Senna lb	65
Senna, comp.....lb	65
Serpentaria lb	65
Stramonium Leaves lb	65
Stramonium Seed lb	65
Strophanthus lb	1 25
Tolu lb	75
Valerian lb	65
Valerian, ammoniated lb	85
Veratrum Viride lb	65
Warburg's lb	1 75
TRIKRESOL, S. & G.....lb	60
TRIMETHYLAMINE oz	55
TRIONAL oz	1 50
TRIPOLI, bulk lb	8-12
TURPENTINE gal	90
In case gal	85
Chian oz	45
Venice lb	35
URANIUM, Acetate, 1-oz vials oz	59
Chloride, 1-oz vials oz	47
Nitrate, 1-oz vials oz	45
Sulphate, 1-oz vials oz	47
UROTOPIN oz	60
Tablets, 20 in box.....box	25
UNGUENTUM CREDE, ½-oz jars.....oz	90
URETHANE oz	54
VANILLIN, 1-oz vials.....oz	75
VERATRINE, pure, ⅛-oz vials.....oz	2 40
VERONAL, powd.....oz	1 60
Tablets, 10c. ea	30
Tablets, 100s ea	2 25
VERDIGRIS lb	40
Powdered lb	45
WATER, Cherry, Laurel.....pt	50
Chlorine lb	40
Distilled. gal	8
Elder Flower lb	50
Orange Flower, triple.....lb	35
Orange Flower gal	2 00
Orange Flower, Chiris, small.....doz	2 00
Orange Flower, Chiris, large.....doz	3 75
Rose, triple lb	40
Rose gal	2 00
Rose, Chiris, 6¾-gal coppers.....gal	1 75
Rose, Chiris, small.....doz	2 00
Rose, Chiris, large.....doz	4 00
WAX, Bayberry lb	45
Bees, yellow, refined. lb	37-40
Bees, yellow, oz. lb	45
Bees, white, extra. lb	60
Bees, white, No. 1. lb	55
Bowdlear's 1-lb cartons doz	4 20
Fruit, can, red.....lb	8
Fruit, can, white lb	8
Japan lb	18-20
WAX, FLOOR lb	25-38
Johnson's, 1-lb cartons.....doz	4 00
Johnson's, ½-lb cartons.....doz	2 25
Johnson's, ¼-lb cartons.....doz	1 40
WHITING, Gilders' lb	3
Spanish lb	2½
WINE, Antimony lb	65
Aromatic lb	65
Colchicum Root lb	75
Colchicum Seed lb	65
Ergot lb	1 25
Ipecac lb	1 25
WOOD, Brazil, ground.....lb	10
Camwood lb	10
Fustic, cut lb	3½-5

Fustic, ground lb	6
Guaiac, rasped lb	10
Hypernic. lb	8-10
Logwood, chip. lb	8-10
Logwood, ground. lb	8-10
Nic. lb	8-10
Quassia, chip. lb	15
Quassia, ground. lb	18
Quassia, powdered. lb	18
Red Sanders, ground. lb	12
Red, cut. lb	10
XANTHOXYLIN, Keith's oz	1 13
XYLOL lb	70
ZINC, Acetate, 1-lb bottles, M. C. W.....lb	43
Benzoate oz	24
Benzoate, 1-oz vials, M. C. W.....oz	24
Carbolate, 1-oz vials, M. C. W.....oz	24
Carbonate, precipitate, 1-lb cartons.....lb	25
Chloride, fused, 1-oz vials oz	13
Chloride, granulated lb	33
Cyanide, 1-oz vials, M. C. W.....oz	21
Hypophosphite, 1-oz vials oz	29
Iodide, 1-oz vials, M. C. W.....oz	37
Metallic, pure, feathered.....lb	27
Oxide, English, Hubbuck's. lb	50
Oxide, pure, M.C.W. lb	30
Permanganate oz	52
Phosphate, M. C. W.....oz	10
Phosphide oz	23
Sulphate, cryst.....lb	8-10
Sulphate, cryst., chemically pure.....lb	18
Sulphide, 1-oz vials, M. C. W.....oz	16
Sulphocarbonate, M. C. W.....lb	59
Sulphocarbonate, 1-oz vials, M. C. W.....oz	11
Sulphate, H. P. lb	15
Sulphate, dried, H. P.....lb	25
Sulphocarbonate oz	11

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Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65
Apollinaris, 50 qt bots in case.....	8 50	2 25
Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Bartlett, 50 qt. bots. in case.....	8 00	2 25
Bethesda, 50 qt. bots. in case.....	7 50	2 25
Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Bythia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50
Franz Joseph, 50 bots. in case.....	11 00	3 00
Garrod Spa Lithia, pints.....	6 00	2 00
Garrod Spa, Lithia, ½-gal.....	5 00	....
Hathorn, 48 pt. bots. in case.....	8 00	2 50
Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, ½ gallons.....	9 50	6 50
Londonderry Lithia, 100 pints.....	13 50	1 75
Poland, qts., 50 to case.....	9 00	2 50
Rackoczy Kissengen	5 00	....
Red Raven Splits.	5 00	1 35
Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Veronica	5 50	....
Vichy Water Celestine	10 25	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.....	12 00	4 50
White Rock Splits.	9 90	1 20
White Rock, pints	11 50	1 50
White Rock, quarts.	8 85	2 25

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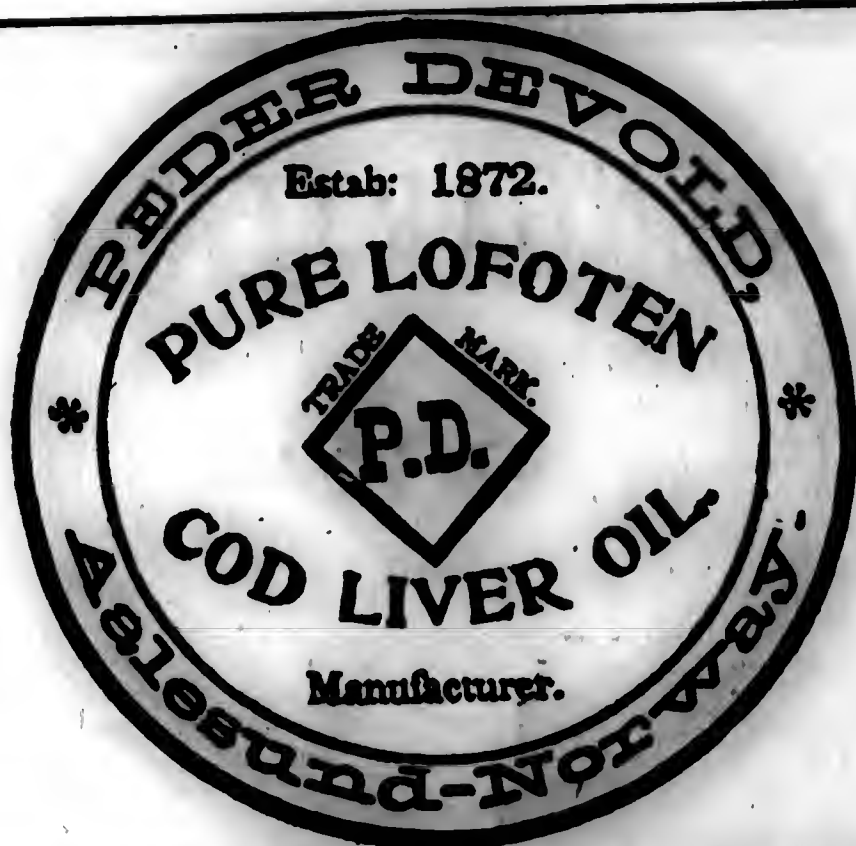
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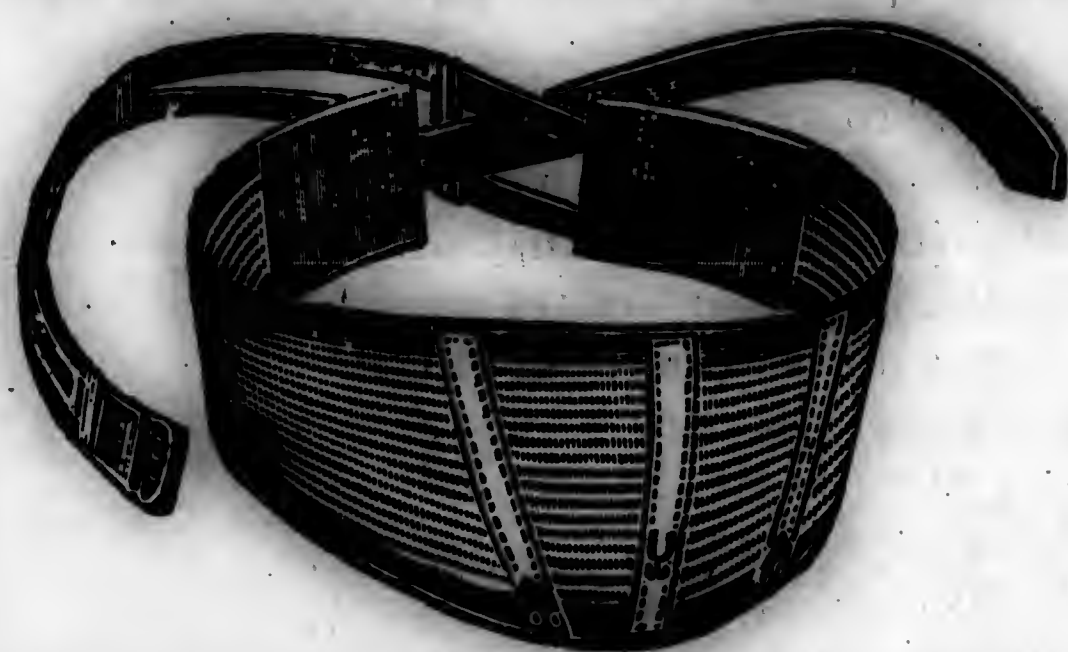
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PHARMACIST**

VOL. 1 JANUARY, 1908 No. 9

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Glyco-Thymoline

Trade-Mark

Registered in U. S. Patent Office
In Use Seventeen Years

This Trade-Mark is the Property of

Kress & Owen Company
New York

EUSOMA

(Echinacea Comp.)

\$9.00 per doz.

Eusoma Ointment.....	\$2.00 per doz.
Iodan, 10 per cent Solution.....	6.00 " "
Iodan Capsules, 10 minim (2½ gr. Iodine)	7.00 " "
Iodan Capsules, 5 minim (1¼ gr. Iodine)	6.50 " "
Mercuran Capsules	6.00 " "

Are high-class prescription specialties extensively advertised to physicians. Order from your jobber or direct.

The Eusoma Pharmaceutical Co.
CINCINNATI, OHIO., U. S. A.

ANESTHETICANALGESIC

TRADE

H.M.C.

(ABBOTT)

Registered

MARK

ANTISPASMODICHYPNOTIC

AN UNQUALIFIED SUCCESS

Used by Physicians Everywhere

Be Sure that You are in Stock

SUBSTITUTES ARE DANGEROUS

HYOSCINE, MORPHINE, and CACTIN COMP. (ABBOTT)

FORMULA

C. P. Hyoscine Hydrobromide
C. P. Morphine Hydrobromide
Cactin, A. A. Co., (from Cactus Grandiflorus)

gr. 1-100
gr. 1-4
gr. 1-67

Tube of 25
Per 100, 4 tubes
Bottle of 100 (bulk)

\$0.40
1.55
1.50

Half strength of above (the use of which we recommend): 25c, 30c; 4 tubes, \$1.15; 100 (bulk) \$1.10.

THE ABBOTT ALKALOIDAL CO., Ravenswood Station, Chicago
251 Fifth Ave., cor. 28th St., New York 325 Pacific Block, Seattle, Wash. 1361 Franklin St., Oakland, Cal.

National Licorice Co.

— Sole Manufacturer of —

Y. & S. LICORICE

The Old-fashioned Remedy for Coughs and Colds

Also the Celebrated
**Scudder
and M. & R.
brands**

Stick Licorice
Powd. Extracts
and Powd. Root
in convenient packages for
the trade



**M. & R.
Wafers**
(In 5c bags)

**Lozenges,
Etc., Etc.**

SERIAL No. 3208

**Our Specialties are for sale
by all Wholesale Druggists**

Advertising matter furnished to Retail Druggists
for Counter and Window Display

Coast Trade Supplied by our San Francisco Agents

W. M. DuVal & Co.

919 Monadnock Building

San Francisco, Cal.

COMPOUNDING PRESCRIPTIONS

is that feature of every well-regulated pharmacy which should be brought to the highest degree of efficiency. "M. C. W." chemicals have always been largely preferred by critical dispensers, which fact we regard as being a special recognition of their high standard of excellence. No pharmacist can offer physicians better evidence as to the careful equipment of his dispensing department than to carry a full line of "M. C. W." chemicals.

Mallinckrodt Chemical Works

ST. LOUIS

NEW YORK

Leading Specialties of REED & CARNRICK

42-46 Germania Ave., Jersey City, N. J.

PROTONUCLEIN (Tablets, Powder and Ointment)

(Proto-et Nucleo-plasms R. & C.)

Primary substances of the cells of the body, containing the true Nucleins.

PEPTENZYME (Tablets, Powder and Elixir)

(Nucleo-enzymes R. & C.)

Nucleo-enzymes of all the glands that aid digestion.

TROPHONINE (Liquid)

(Sat. Sol. Nucleo-[proteid-et albumen cum enzymes] R. & C.)

Contains the highest form of Nutriment found in cell.

PANCROBILIN (Pill and Liquid)

Physiologically prepared ox-bile and Nucleo-enzymes of the Pancreas. For Intestinal Indigestion and Habitual Constipation; also as a Cholagogue.

NEPHRITIN (5-gr. TABLETS only)

The primary substances of the cells of the cortex, and the convoluted tubules of the Kidney. For Bright's and other disturbances of the Kidney.

CARNRICK'S LACTO-PREPARATA

A pure milk infants' food and perfect equivalent for mother's milk.

CARNRICK'S SOLUBLE FOOD

A milk and cereal food for infants, invalids and dyspeptics.

CORDIAL ANALEPTINE

For Rheumatism and Gouty Diathesis.

ROBOLINE CORDIAL

A tonic and nerve-stimulant.

ZYMOCID

A colorless, non-poisonous liquid antiseptic.

Shac Pays Well

SHAC is a short name for Stearns' Head Ache Cure.

When your customers call for SHAC, they want the same thing that you have always sold as Stearns' Head Ache Cure.

The box has both names on the label.

Considering that SHAC is so widely known, so good, so salable, and costs you but \$1.50 per dozen—just half the selling price—couldn't you well afford to give it a little extra push?

STEARNS & CURTIUS, Inc.
5 PLATT ST., NEW YORK
U. S. A.

POND'S EXTRACT

"SPECIAL OFFER" CASE

for the retail trade shows a

PROFIT OF 65 PER CENT.

Case and Cost small enough
for lightest demand.

As right is reserved to withdraw this offer at any time, retailers should promptly avail of the opportunity now presented to make an unusual profit on such a widely-advertised, standard and quick-selling line as

POND'S EXTRACT

For illustrated explanatory circular write

LAMONT, CORLISS & CO., Selling Agents
78 Hudson Street, Dept. 82 New York City

GUARANTEED!

THE new Pure Food and Drugs Act requires all manufacturers to sell their products under a guaranty, and a general guaranty should be filed in the office of the Secretary of Agriculture at Washington.

The following is a copy of a letter issued from the Department of Agriculture to us:

DEPARTMENT OF AGRICULTURE
Office of the Secretary
WASHINGTON

November 1, 1906.

*The Antikamnia Chemical Company,
St. Louis, Mo.*

Gentlemen:—

Your guaranty as to the character of the materials manufactured and sold by you, given in accordance with Circular 21 of this office, has been received, found to be in proper form and is regularly filed. The serial number attached thereto is No. 10.

Respectfully,

W. M. HAYS, Act. Sec'y.

All Antikamnia Preparations are sold under this guaranty and our Serial No. 10 appears on every package sold under the new law, thus assuring the retail drug trade of the absolute reliability of these pharmaceuticals.

The Antikamnia Chemical Co., St. Louis, Mo., U.S.A.

Cela Kut Liquid Court Plaster Is 90 Per Cent ANTISEPTIC

**COLORLESS AND
WATERPROOF
PUT UP IN TUBES
SEALED**

Cap and Foot with an impervious, rubber like preparation that prevents Evaporation. This adheres to the cap, and its protective qualities are not destroyed in opening the tube. Tubes are mounted on handsome scarlet and white display card.

CELA KUT IS

the best and most convenient packaged preparation of its kind. 60 cents dozen. Postal will bring sample. Your jobber or

Lee Chemical Mfg. Company

Detroit, Michigan

Guaranteed

Serial No. 2254

The "Fairchild" Products

Prescription Goods

The "Fairchild" products, like all prescription goods, help to maintain the natural relation of mutual dependence between prescriber and dispenser. The uses of these products are important and various, and many have certain activities permitting of simple demonstration which make them peculiarly interesting under investigation.

These products are offered with absolute assurance of accuracy and reliability.

Fairchild Bros. & Foster
NEW YORK

TO THE TRADE

Your customers hold you responsible for the goods you send them. They depend upon your assurance that the goods are up to the standard. Do not, therefore, jeopardize your business by handling unknown goods. Carry on your shelves only products of reputable manufacturers which have an established reputation.

ALWAYS SPECIFY

GLENN'S
SULPHUR SOAP

the original and best combination of its kind and see to it that your jobber does not substitute an inferior brand.

Diamond Dyes

Always

Sell Themselves

We advertise Diamond Dyes in all the women's magazines all the time. When the public thinks of dyes it thinks of Diamond Dyes. The demand for them proves this.

Diamond Dyes are a habit; one of the most agreeable, economical habits that one can have. You are never stuck with Diamond Dyes. All that your customers need to know is that you keep them; and your steady profits are a certainty.

**Recommend Diamond Dyes to Your Customers.
They Will Thank You for It.**

WELLS & RICHARDSON CO., - - BURLINGTON, VERMONT

THE Pacific Pharmacist

Official Organ of the California Pharmaceutical Association

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

Entered as second-class matter September 30, 1907, at the postoffice at San Francisco, California, under the Act of Congress of March 3, 1879.

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HENRY KAPLAN *Business Manager*

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Communications on questions pertaining to Pharmacy and the Drug Business are solicited. The name of the writer should accompany every article, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

**PLEASE NOTIFY THIS OFFICE IF YOU DO
NOT RECEIVE THE JOURNAL REGULARLY**

Editorial Notes

ADULTERATION, IMPURITY AND INFERIORITY IN QUALITY We recently called attention to the difference between substitution and imitation, which are sometimes confounded with each other, and to the moral turpitude generally involved in both. Another case of confusion worse confounded is that of adulteration and variation from established standard. Strictly speaking, adulteration is the wilful admixture of something of less value or no value or possibly actually injurious with an article of greater value, for the purpose of reducing its cost to the dealer. An impurity may be

an adulteration, but not necessarily so. Commercial sodium bicarbonate contains small quantities of sodium chloride and sodium sulphate, which are present for the reason that the article cannot be made without them, except at a great cost, and as they are harmless, and it is expensive to remove them, the bicarbonate is usually sold with these impurities in it. They have not been added for the purpose of cheapening the cost. They are simply impurities that have not been removed. By reason of their presence, the salt thus sold does not conform to the standard of the United States Pharmacopœia,

which requires it to be nearly chemically pure. This variation from standard is not an adulteration, but an impurity, yet the National Pure Food and Drugs Law, and the Pure Drugs Law of this State both declare that such a variation from standard is an adulteration within the meaning of these acts.

Here we have a new interpretation put into a word by the laws of the land, that is not in accord with its ordinary meaning. In connection with this subject, we call attention to some criticisms on the report of the A. Ph. A. Committee on the drug market, by Professor C. E. Caspari, on another page.

THE CALIFORNIA STATE BOARD OF PHARMACY Has just issued a list of all licentiates and assistants in good standing to June 30, 1908, and also a circular giving information in regard to certain matters connected with the sale and registration of poisons and habit-forming drugs. The circular calls attention to the fact that poisons can only be sold by registered pharmacists, and that all poisons included in Schedule A must bear labels containing the word poison with the skull and cross-bones in vignette, and with the antidote prescribed by the Board, and also with the name and address of the seller.

Should any druggist have failed to receive this circular, we strongly recommend him to write to the secretary for a copy.

The Board also sends out a copy of the decision by the Minnesota Supreme Court affirming the constitutionality of the annual charge of \$2.00 for re-registration. A part of this decision reads as follows:

The fee (\$2.00) provided for by the statute is not in any proper view a tax upon the business of pharmacy, nor is the

amount thereof at all unreasonable. It is imposed only as a charge upon those engaged in the business of pharmacy for the support and maintenance of the machinery provided by statute for its regulation. License fees of this character are sustained under numerous analogous statutes.

Pharmacy Prosecutions

We note that the Board of Pharmacy is rigorously enforcing the law in regard to registration. It is only just that those who are registered and who comply with the law in other respects should be protected from competition with persons who disregard the law. In San José a number of arrests have been made, the offenses charged consisting of the employing of incompetent clerks in compounding prescriptions, the selling of poisons and inferior drugs. It is stated that one store was found in which not one of the employés was registered.

PERCENTAGE OF ALCOHOL IN FLUID EXTRACTS, ETC.

We anticipate there will be considerable difficulty in obtaining correct data as to the percentage of alcohol in fluid extracts, etc., so that they may be correctly labelled. Some persons consider that if they give the amount of alcohol in the menstruum that will be the percentage in the fluid extract, but this would be very far from correct. The moisture in the drug has to be taken into account. In some it is about three per cent, in others nearly five times as much. This, of course, affects the alcohol content in the finished product. Evaporation during percolation, etc., still further reduces the alcohol per cent, so that any one who will make an exact estimation of the amount of alcohol in a finished fluid extract will find that it differs considerably from the percentage in the menstruum employed. This difference will not be the same for all drugs; in

fact, scarcely any two will give the same results. This should be borne in mind by pharmacists when they are getting their labels printed.

PARCELS POST

Drummers don't want the Parcels Post. They foresee evil in it for their customers, the dealers in the country towns. At the annual banquet of the Commercial Travelers' Association in this city last month a letter was read from F. B. Dickson, Secretary of the California State Retail Hardware Association, in which he urged the importance of passing a resolution in which the congress shall express its ideas regarding the much-talked-of Parcels Post bill, and which is to come up at this session of the United States Congress. He declares in the letter that there never was a bill of greater importance to the commercial interests of the country. He urged that the members arouse every energy for the defeat of the bill. The letter states that the damage the railroads and the trusts can do is nothing as compared with the damage the Parcels Post will do to the business interests generally, "if the government should go into the express business, for this is just what the law means," says the writer. In conclusion he says: "We do not want the Parcels Post because it would injure the farmer and merchant and promote concentration of capital. We don't want it because we don't want European conditions to exist in our country. In European countries, where the Parcels Post exists, the scarcity of the retail merchant is quite noticeable. These conditions were not always so."

The Chicago Journal says:

A Parcels Post will drive out of business into bankruptcy the innumerable merchants who now prosper in the country and in small communities. It will operate for the benefit of great mail-order establishments

which are already, with the aid of freight rates and the express companies, altogether too active for the peace of country dealers. Having the advantage of large capital and the ability to make extensive purchases, they can buy cheaper than small merchants, and when they have the use of the government postal service they will be able to undersell local merchants everywhere.

Parcels Post and Good Roads Postmaster General Meyer, in his enthusiasm over the projected Parcels Post, after trying to sugar-coat the bitter pill to the country merchant by promising him a lower rate of postage over rural free delivery routes than the city man has for his suburban customers, says:

Another inevitable result will be the improvement of the roads due to the increased transportation over the rural routes. One can not improve the roads without benefiting the farmer, nor can one benefit the farmer without benefiting the rest of the country.

Who is going to improve these country roads? Will the Federal government? That would be centralization such as the framers of our constitution never dreamed of. And if the townships and counties still have to do this work, will the Federal government foot the bills, wholly or in part? Of course not. Imagine the traffic over these roads around Chico, Colusa, Napa, Sebastopol, Santa Rosa and Martinez being so great by reason of the enormous freightage of U. S. mails that the roads had to be repaired in consequence! Why, it would take all the merchandise now sold in those towns, from farm implements, pianos and lumber to kid gloves and neckties to necessitate such repairs. Evidently Mr. Meyer wants to completely obliterate the country towns, or he does not know what he is talking about, and yet President Roosevelt commends this report to Congress!

One of the reasons given in favor of

the Parcels Post is that it would put a quietus on the express companies, who now charge extortionate rates for their services. So the government should go into the express business. This kind of reasoning would lead to the placing of all business in the hands of the government—a *reductio ad absurdum*.

FREE

There is about as much excuse for free antitoxin as there is for free compound cathartic pills and free school text-books.

It cannot be denied that it is desirable for the State, county and municipality to combat infectious and contagious diseases by any and all suitable means available. If it is essential to this end to distribute free antitoxin, free antiseptics, free drugs generally, free medical services, etc., then, by all means, let it be done. But is this essential? We do not see it in that light.

The recent free antitoxin discussion centers about the so-called "indigent poor," whom we shall always have with us. It would certainly be brutal and inhuman to deny medical aid to children, simply because the parents are too poor to pay for such services and the necessary drugs. Why, however, should the exception be made in the use of antitoxin?

If arrangements can be made which will make it possible to distribute free antitoxin to the children of parents that cannot pay, then by all means let it be done. Such free antitoxin should be of the best and should be properly administered by competent physicians. Pennsylvania, Massachusetts and Illinois now supply free antitoxin. Some authorities in these States declare themselves in favor of it, while others oppose it very strongly, declaring that the privilege is often much abused.

SCARCITY OF DRUG CLERKS

Proprietors still continue to complain of a scarcity of clerks, more particularly of reliable ones. Notwithstanding the increased pay and better hours, good clerks are still in demand. We do not care to print all that we hear about clerks of the other kind, but we regret that the complaint has come to us frequently of late about clerks who indulge too much in intoxicating liquor. This is most unfortunate, for some men otherwise valuable as prescriptionists and salesmen cannot be employed. If they succeed in getting a position, it is only to lose it after a short trial.

A number of suggestions have been made with a view of relieving this scarcity of clerks. One is to employ women on the ground that they are more reliable, more honest, never given to drink, and seldom unmanageable. If only all of the men who now keep themselves floating from pillar to post by reason of their drinking habits would become permanently sober, it would go a long way towards relieving the stringency.

Another suggestion is to get more boys to go to pharmacy colleges and fit themselves for their calling. This is a very good idea, because there are many clerks in drug stores who are only indifferent pharmacists. They are employed because they are the best that can be had, but while they do well in some departments, they are not good all-round clerks.

Another idea has been advanced by Mr. Otto E. Bruder in the *Druggists' Circular*, who suggests as a panacea that proprietors pay more salary, require shorter hours and give such good treatment that clerks will like their employers and want to work for them. Here is what he says: "Do something that your clerk will REALLY like you, and there will be no scarcity of clerks,

neither will your clerk be in any hurry to enter the ranks of the proprietors."

This reminds us of the old English song, "We May Be 'Appy Yet."

NEW POISON LAW IN SWEDEN It is refreshing to find a country legislating on the sale of poisons without singling the unfortunate druggist as the sole victim of the law's animadversions. In Sweden poisons are divided into two classes: First, poisonous drugs and their products, and, second, anilin oil and poisonous colors or preparations of the same. This latter class includes not only such arsenical colors as are inhibited by our State law, but coloring substances obtained from antimony, barium, lead, chromium and other metals, as well as gamboge and picric acid. Certain articles must not be sold under any circumstances, such as children's toys colored or printed with poisonous colors. Tin-foil used for packing food, etc., must not contain more than 1% of lead. Cooking utensils must not have more than a very small percentage of lead, but solder may contain 10% of lead.

Pharmacists Not Members of the A. Ph. A. Dr. H. M. Whelpley, editor of Meyer Brothers' Druggist, makes the somewhat remarkable statement "that no individual has arisen to pharmaceutical distinction (in America) outside of its (the A. Ph. A.) ranks since the organization began in 1852." Startling as the observation is, we cannot recall a single instance to refute the statement. Dr. Whelpley very forcibly adds that "the progressive pharmacist should consider it a privilege to join the association."

BLEND, MIXTURE, COMPOUND

These terms appear to be a source of great confusion. They apply to admixtures of two or more substances, whether solid, liquid or gaseous, and have a very important significance in connection with the Federal Food and Drugs Act of June 30, 1906.

A blend is a mixture of two or more substances closely similar in kind. The terms mixtures and compounds are used synonymously with each other and indicate a commingling of two or more substances dissimilar in kind. A mixture of two or more kinds of rye whisky would be a blend, whereas beer, wine or cider, fortified by whisky or brandy, would be a compound or mixture, and not a blend. Mixing two kinds of wheat flour constitutes a blend. Wheat flour, rye flour and buckwheat flour mixed together is a compound. Again, whisky or brandy, to which wild cherries, juniper berries, or carraway, etc., has been added, is a compound. A blend may contain a dissimilar substance which converts it into a compound.

A single substance containing only such elements as are natural to it, is not a blend or a compound. For example, a wine, brandy or whisky differing from another wine, brandy or whisky in bouquet or aroma, but having an identical origin, is not a blend or a compound, but constitutes an identical substance in so far as the above terms are concerned. Thus the difference between old and new whisky or wine cannot be designated by the term blend.

There are numerous substances which will require the wisdom of a police justice to decide whether they are blends or compounds.

There are about 46,000 druggists in the United States.

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Original Communications.

A CONTRIBUTION TO THE KNOWLEDGE OF THE COLORING MATTERS OF FLOWERS*

By W. T. Wenzell, Phar. M.

Flowers are universally admired on account of their brilliant and varied colors, their form, and, in many instances, their fragrance, but any one who has paid attention to botany or has a general knowledge of plants knows that not every flower possesses all of these characteristics. A great number of flowering plants, I may say the majority, produce only small and unnoticeable inflorescences, like those of grasses, and many other field weeds and forest trees.

It is rather to flowers presenting large expanded surfaces of brilliant colors, vieing in beauty with the colors of the rainbow and the solar spectrum that I would introduce you to show why they assume these bright colors, and why this, that or any particular flower or blossom should possess this, that or the other particular color. Why, for instance, the buttercup is always yellow, the harebell blue, and the purple foxglove dappled with red spots. Why does the skyblue prevail in the veronicas, and white in the umbellates? These are some of the questions which I shall briefly endeavor to answer from the modern standpoint of evolution.

The colors of flowers usually reside in the specialized organs known as the petals, though they may also be found in the leaves replacing the chlorophyll, in the sepals and bracts, or more so in the stamens and the pistil.

As a matter of information to persons who should happen to be im-

perfectly acquainted with the structure and mission of flowers, a brief description of the organs which go to make up a typical flower may be considered proper.

The essential elements of a flower are not at all the showy and brilliant floral leaves, but a set of comparatively small and unnoticed organs occupying the center of most of the ordinary flowers.

The simplest type of flower consists of two such organs only, one a pistil or ovary containing a embryo seed, and stamens which produce the pollen necessary to fertilize it.

The production of the seed is in fact the sole function of the flower; every additional part is only useful in so far as it conduces to this end.

In the most simple blossom fertilization is effected by a grain of pollen from a stamen falling upon the stigma or sensitive surface of the pistil, from thence sending forth a pollen tube, which penetrates the ovule or embryo seed and impregnates it.

As a rule, however, it is not desirable that a flower should be fertilized by pollen from its own stamens. Mr. Darwin has shown that in many cases when a pistil is fecundated by pollen from a neighboring blossom, or still better from a neighboring plant, it produces more and sounder seeds, and therefore is capable of also producing more and sounder offspring. There are two ways by which plants derive the benefits of cross-fertilization, the one is by adapting themselves to fertilization by means of the wind, the other by adapting themselves to fertilization by means of insects.

In order to allure insects, nature has provided that flowers should secrete

* Read before the California Pharmaceutical Association, November 14, 1907.

small quantities of honey to induce them to visit one flower after another of the same kind, the highly colored petals serving also as a guide for the insects, as it is well-known that certain insects are attracted to and prefer certain colors.

The function of the flower, therefore, is to produce pollen in order to fertilize the ovary, the brightly colored petals to attract the fertilizing insects which feast upon the nectar secreted by these; all specialized to bring about the cross-fertilization of the flower.

So much by way of introduction. Now, since the bright coloring principles usually reside in the petals or floral leaves, and since petals have for their main, if not for their only function, the display of such colors as are attractive to fertilizing insects, it is clear that we may now make the inquiry, what was the original color of the organs from which the petals were developed?

We may take it for granted that the primordial petals would revert to and follow the color of the parts out of which they were originally evolved, so that, should we regard them as being derived from leaves we might fairly conclude that the earliest petals were green; but, on the other hand, if we should regard them as modified stamens, then we could conclude that they were yellow. Now which of these alternatives is most likely to be true? Botanists have accepted the latter proposition as the one likely to be true. They consider that in all probability petals are enlarged and flattened stamens set apart for the special agency of attracting insects; that any flower which presents brilliant colors to attract the eyes of the beetles, the bees and the butterflies, would naturally receive the greatest number of visits from their insect friends. As a

matter of fact, the earliest, and also the simplest types of existing flowers are always yellow, sometimes white, but never blue. This in itself would be sufficient ground for believing that yellow was the original color of all petals.

If we assume that the earliest petals were derived from flattened stamens, and that their color was yellow, how did some of them afterwards come to be white, red, purple, violet and blue? From the researches of Darwin, Wallace, Lubbock and Hermann Mueller it is now known that not only are the colors of flowers as a whole intended to attract insects in general, but that certain colors are definitely intended to attract a special kind of insect. This fact establishes the close relations which we must admit to exist between insect life and the possible mutability of colors. That when, from whatever cause, the favorite color of any particular flower may be out of season, the honey-seeking insect will be impelled to visit different colored flowers, and thus carry the pollen to flowers capable of forming or producing a change of color, and eventually new varieties.

The generally accepted belief is that enunciated by Goethe and named Goethe's doctrine, who held that all parts of the flower are modified leaves, that such gradual transition could be traced between them as from the ordinary leaf to the sepal, the petal, the stamens and the ovary; but unfortunately for the truth of this theory we now know that the earliest flowers had no sepals or petals, but that the primitive flowering plants had simply leaves on the one hand, and stamens and ovules on the other.

There are at present surviving some of these oldest types of flowers as exemplified in certain gymnosperms. The gymnosperms are geologically earlier

than any other flowering plants, occurring most likely during the earlier tertiary period, whilst the origin of petals and sepals must be referred to the post-tertiary period of the world's history; that, therefore, the primitive flowers had no petals at all, and that petals could only have appeared at some later period.

If it be admitted that the earliest petals in the history of floral development were derived from flattened stamens, and, as is well known, most of the stamens of the present period still have this color, would it not then naturally follow that they (the petals) would be, for the most part, yellow in color, like the stamens from which they originated? And further, if we concede that this is the case, that the earlier flowers were yellow, that some of them became first white, changing into this pigment, closely co-related to the yellow; that next, by a step towards evolution, a few of them became red or purple, which finally emerged through thousands of years of gradual evolution into the various shades of lilac, violet and blue, modifications that seem to follow in this definite and regular order?

That the principle here advanced is true, can be verified by the common bell-flower, the *Campanula rotundifolia*, as one in which the line of descent can be clearly traced, from a primitive yellow to its highest state of development, and that its ancestors have passed successively through all of the intermediate stages of colors. But we need not go to the blue bells of Scotland to prove the existence of a progressive law which regulated these changes. Our little forget-me-not (*Myosotis versicolor*) gives us a home lesson. In this flower the calyx presents a pale yellow when first it opens its diminutive corolla, but as it grows

older it becomes faintly pinkish, passing into white and red, and ends by gradually becoming blue, passing in its transitions, through the various stages of purple and violet.

It will now be readily understood that these progressive changes in color follow a general law, beginning with yellow or white, and ending in blue. The evening primrose, for instance, has a white flower in its earliest stages of development, followed by a red one. The morning glory opens its corolla, a pinkish white, changing into red, purple or blue flowers.

The coloring principles of flowers may be divided into two classes, monochromatic and polychromatic; that is, simple colors or compound colors. The yellow and white may be placed in the first class. The yellow is the primitive color as exemplified in the stamens from which the first petals were derived, to which the orange may be also added. This primitive yellow is characterized by its resistance to the action of acids and alkalis, its insolubility in water and weak alcohol, but its ready solubility in ether. The white coloring principles contained in the spadix of the calla lily and the white pond lily and analogous flowers possess analogous characteristics to those of the yellows mentioned. On account of their permanency and resistance to the action of chemical influences, the yellow and white coloring matters may properly be designated as pigments. This yellow pigment so common in such floral leaves as our eschscholtzia, the marigold, daffodil and otherwise variously distributed not only in the phanerogamous or flowering plants, but also in the cryptograms and fungi in general, is also found in the animal kingdom, as the yolk of eggs and as a constituent of the *corpus luteum*. This

pigment was first isolated from the marigold by Berzelius, and named by him anthoxanthin (from anthos flower and xanthin, signifying yellow). Thudichum found the same pigment in seeds and berries, the yolk of eggs, and the **corpus luteum** of mammalia. It was named by him lutein, the Latin luteus, signifying yellow. Since then Kühne and Krückenberg closely studied its chemical characters and occurrence, and they have given it the more appropriate name of lipochrome, the literal meaning of which is fat-color, since it generally occurs in combination with a fatty substance from which it can only be separated by saponification, and this fully accounts for the solubility of this pigment in ether and insolubility in weak alcohol. The lipochromes respond to certain characteristic tests.

In the solid state, when treated with concentrated sulphuric acid or nitric acid, it gives a blue color reaction, with iodo-potassium iodide (with some exceptions) a bluish-green color. When exposed to sunlight it is rapidly bleached, and is then converted into cholesterin. Spectroscopic examination shows one or two absorption bands in the green and blue portions of the spectrum.

Now, what may be said regarding the white color pigment in floral leaves? The spathe of the calla lily (**Calla ethiopica**) on account of its ivory-like surface and pure white color seemed a suitable subject for investigation. This white pigment was readily dissolved in ether to a colorless fluid, which, on spontaneous evaporation deposited the white pigment unchanged. A solution of this pigment in dilute alcohol, when treated with various reagents, produced yellow or red color-reaction. The pigment itself was not sensibly influenced by dilute acid or

alkalies, thus showing the apparent close relation to its yellow congeners, the lipochromes.

Having disposed of the yellow and white pigments of flowers, we now propose to enter upon the so-called chromogens, which furnish us the most beautiful of natural colors, vieing in beauty with the colors of the rainbow and those of the solar spectrum. The name chromogens has been selected mainly from the fact that these coloring principles may each assume under peculiar circumstances an endless variation of tints and hues, and we see, therefore, that the conception of homogeneous colors, which by admixture could produce the colors of flowers according to earlier observers was simply a fallacy. They regarded, for instance, the coloring matter of roses, dahlias, peonies, etc., as cyanin reddened by acids. On the other hand, they believed scarlet-red flowers to consist of a mixture of xanthin with cyanin. In order to prove or disprove this broad assertion of Fremy and Cloez, that scarlet-red flowers were mixtures of cyanin and xanthin, I subjected the petals of the scarlet variety of the horse-shoe geranium to a chemical and spectroscopical research. This flower, belonging to the natural order Geraniaceæ, and commonly known as the horse-shoe geranium, is characterized by the feature that its leaves are always marked with a dark concentric ring or zone of various shades of color; hence its botanical name, **Pelargonium zonale**. It remained for this particular flower to prove that the conception of two homogeneous coloring principles, to which all of the observed shades and hues of colors in flowers could be referred, was a fallacy. The result of this investigation showed that the flowers of the horse-shoe geranium were not a mixture of the blue cyanin,

and the yellow xanthin, but consisted of five distinct red coloring principles, each possessing a different fluorescence and different absorption bands to be seen in its alkaline and acid solutions, when examined by the spectroscope. They were all shown to be chromogens by their passing through changes of colors when subjected to the action of alkalies and acids. One of these coloring matters was obtained in the form of red needle-shaped crystals. These crystals in ammoniacal solution, when viewed by transmitted light, gave a red color, and by a reflected light, a green. The crystals were, therefore, dichroic. Its fluorescence is red. It was the first instance of the discovery in flowers of a chromogen in the crystalline state.

Experiments on violets, carnations, and bachelor's buttons have been recently made on similar lines, the result of which have so far corroborated previous labors on this subject. When violets were made into a tincture by macerating with diluted alcohol, the chromogen was dissolved, making a liquid either colorless or with a pale tinge of lilac, which, when treated with a few drops of sulphuric acid, developed a beautiful carmine color. On carefully adding to the liquid ammonia water the carmine color passed to a purple, then became nearly colorless, and on the further addition of ammonia, a violet color appeared, changing rapidly to a green. On adding now acid to the green solution, the liquid underwent a reverse change of color. It was found that the liquid passes through a chromatic scale of from green to blue, to violet, to purple, and to red.

The treatment of flowers themselves by alkalies or acid forms an exceedingly interesting subject. The violet color of violets may be changed by the vapor of ammonia, first to a blue, then

to a green, and finally to a yellow. On dipping the flowers into an acid solution, a red violet is the result. On subjecting the flowers to the vapors of sulphurous acid their color is bleached to a white, but in every instance when the colors are thus changed, the original color may be, by careful management, restored, a characteristic belonging to all true chromogens. The red violets are best obtained by exposing the green violets to the vapors of glacial acetic acid, when the green color will be changed, first to blue, then to violet, then to purple, and finally to the red, and it is here where the color change comes to an end.

As to the state in which chromogens exist in flowers, the view may be taken as based upon chemical data. It is conceivable that all coloring principles belonging to the class of chromogens are, when separated in the free and solid state, red, as was ascertained by the crystals obtained from the horse-shoe geranium. The color of violets is easily extracted by dilute alcohol—the liquid is mostly colorless, but is sometimes tinged with lilac. Strong alcohol does not extract the color at all. As has been stated, the coloring in flowers, when perfectly neutralized by a base, becomes colorless. This colorless solution is changed to red by acids, and to green by alkalies.

It appears that in the flower the violet is produced by the presence of the alkaline sodium phosphate (HNa_2PO_4) and that when a flower is extracted with diluted alcohol, the coloring matter is removed from the influence of this salt. In blue flowers this alkaline sodium phosphate is a constant constituent; in the reds, the sodium phosphate (H_2NaPO_4). The alkalinity of the salt (HNa_2PO_4) is not sufficient to produce a green color; hence nature does not produce green flowers.

It may be proper to state that the

chromogens of the most highly developed flowers only are capable of producing the greatest variety of flower tints.

The flower commonly known as the bachelor's button is only capable of producing colors from blue to red. We cannot convert it to either a yellow or violet flower. The white bachelor's button of the florists cannot be changed by acids or alkalies into any color because it contains the lipochrome pigment only. There are other flowers that show a limited disposition to a change of color. As an example may be cited the yellow and the red dahlias. Both contain the same chromogens. The red dahlia is changed to yellow by acids, the yellow dahlia is changed to red by alkalies, without any intermediate play of colors, showing that these coloring principles are the opposite of those of the pelargoniums.

The carnations or pinks form a distinct type. Their colors are white, yellow, pink and maroon; no blue, violet or purple pinks are known.

The transformations of color by the usual reagents are also peculiar. When the colored flowers are bleached by sulphurous acid, that is to say, when the color unites with this reagent to form a colorless combination, and the flowers are treated with ammonia, a beautiful canary yellow color results, whilst in the pelargonium type, it would be changed to a green by a similar treatment.

In previous investigation made by the writer, it has been shown that the chromogens in flowers do not as a rule consist of one principle only, but are frequently composed of two or more, each possessing peculiar properties by which they may be separated from each other and identified, and not only this, but it may be further assumed that in each family belonging to the same

natural order a similarity of coloring principles will be found to exist.

I am now preparing for the **Pacific Pharmacist** a paper on the coloring matters existing in the flowers of the tree mallow, the **Cavatera assurgenti-flora** Kellogg, a well-known shrub indigenous to this State.

THE HOUSE-FLY AS A DISEASE DISSEMINATOR

There is a popular notion that house-flies are scavengers that tend to purify air and surroundings by eating filth. Those who hold this opinion also hold that rats and mice purify farm dwellings, and that frogs and water-rats in the well purify the water. This is all wrong. House-flies are very nasty in their habits. They get into everything, and a little of everything always clings to them. They have six very large (comparatively) feet, which they bring in contact with everything, and at once proceed to walk over things, depositing what filth clings to these feet at the rate of six dabs at a time. They have a big mouth, licking and sucking apparatus, which samples everything. Flies have the annoying habit of falling into everything that is placed on the table, where they struggle for a long time until they finally crawl out, spend some time in wiping off and depositing whatever may have been clinging to them on any convenient spot, as the bald place on top of the head, the bread, the cheese, the saucer of milk, etc., and then proceed to tumble into the next dish containing a liquid, usually winding up in the syrup, where it dies after a brave struggle. The syrup is next placed on the bread and eaten, fly, filth and all. Sometimes the fly is discovered before it finds its way into your mouth, but the chances are against this.

In order to satisfy yourself that flies

must be filthy, it is only necessary to observe these interesting creatures for a short time. When not employed in falling into things or in depositing on you what filth may be in or upon them, they are busily engaged in the process called "washing," which simply consists in spreading the filth more evenly over their own bodies in order to avoid becoming lop-sided, due to a localized accumulation of filth.

Again, flies have the naughty habit of flying into your mouth just as you are about to laugh at your friend's joke. They are very ambitious, investigating your nostrils, ears and eyes, again and again returning to the work with marvelous pertinacity. If by accident you should succeed in squashing one of them with a well-directed blow, the chances are that you will next find its body serenely floating in the milk or cream pitcher.

Sufficient has been said to make it perfectly clear that the house-fly could serve as a very dangerous disseminator of diseases, such as typhoid, diphtheria, small-pox, plague, etc., conditions being suitable. Flies are **not** desirable scavengers. They should be kept out of all dwellings, and should be destroyed wherever found. They are dangerous in direct proportion to their number and to the density of the population in which they reside. Death to all flies!

THE FILTHY OYSTER

Numerous typhoid epidemics have been traced to oysters. It is known that many of the oyster-beds are washed by the sewage of cities and towns. They become contaminated with the typhoid germ, which is a filthy organism, and the disease is thus carried directly to the intestinal tract of the eater.

At best the oyster is filthy. One chance an attack of typhoid fever every time he eats a raw oyster. The

free use of lemon juice may destroy some of the typhoid germs clinging to the exterior, but the acid does not reach such germs as may be in the big, greenish black mass forming the greater portion of the inside of the oyster.

Good advice is not to eat them, but if you must eat them, fry them or boil them to a finish. Boiling for two hours is supposed to destroy all germs. Fried to a crisp turn will serve the same purpose.

A. S.

PHARMACEUTICAL LAW

And Matters of Legal Interest to Pharmacists

By Charles B. Whilden, Ph.G.,
Secretary of the California State Board of Pharmacy

Law, from the Latin root *Lex-Leges*, "is that which is laid, set or fixed; like statute, from the Latin *statuere*, to make to stand. A rule of being or conduct, established by an authority able to enforce its will; a controlling regulation; the mode or order according to which an agent or power acts." "In its most general and comprehensive significance, the word law denotes a rule of action and is applied indiscriminately to all kinds of action. It is, further, a rule of action prescribed by some superior, which some one inferior is bound to obey. In a more restricted sense, it is applied, not to rules of action in general, but to human action or conduct in particular." The social life is shaped and governed by relations of cause and effect, which man has himself established. The system of law links together civil and moral duties. It takes the citizen at the moment of his birth, nay, even extends its jurisdiction over his pre-natal state, and follows him with directions through the different epochs of his life.

In the days of ancient Greece the Athenians were a prey to anarchy, and they besought the great law-giver, Draco, a man of distinguished birth, of severe manners, yet of large experience in public affairs, to give them a code of laws. Thus he became

* Read before the California Pharmaceutical Association at its annual meeting held in San Francisco on Thursday, November 14, 1907.

the author of the first written code of laws, 621 B. C. The Draconian laws were so severe they were said to have been written in blood, and, desiring modification, the Athenians, later on, appointed Solon to draw up a new code, which, although still severe, was much more to their liking. We have all read of "The laws of the Medes and Persians, which altereth not." In the Scriptures we find the Jewish or Mosaic code. Again "The will of God as the rule for the disposition and conduct of all responsible beings toward Him and toward each other, appealing to us through our conscience and moral nature from an invisible source might well be recognized as the Divine law."

In former days laws were made by the decree of kings, who had absolute power of life and death, thus forming the laws of monarchy. Then again the laws were framed by bodies of men representing the powerful and wealthy classes, being in reality the laws of aristocracy; but in our own country, at the present time, our laws are made, in theory, at least, by the people, through their representatives, who are supposed to be the servants of the people, and to express their will in municipal, State and national deliberations. Thus we have today the laws of democracy.

As man reached a higher state of civilization he depended less upon nature to relieve and restore the abnormal conditions of the human system, and became more or less dependent upon the action of drugs. As the variety of agents derived from the vegetable, mineral and animal kingdoms increased, we find him devoting his attention more and more to their variety, their structure, their composition, their physiological action and therapeutic effect. So infinite became the variety and so varied the methods of preparation and mode of administration, that a system of standards became indispensable; thus we have the origin of the Pharmacopœia, the first of which was, I believe, simply a collection of recipes of certain physicians. To make the preparations of the Pharmacopœia, however, producing simples or compounds always of a certain standard strength and mixing and dispensing them for consumption, required great care, skill and ability, hence it became necessary to surround their manipulating, compounding and dispensing with safeguards by requiring that the manipulator be a person of proper knowledge and experience. This could be done only by au-

thority of law, hence appeals have been made to the various legislative bodies to enact laws governing and regulating the practice of pharmacy and the sale of poisons, with the result that today every one of the forty-six States, together with the Territories and the District of Columbia, have such laws on their statute books. These statutes are all similar in intent, but vary in requirements. They all provide for a commission whose duty it is to examine aspirants for the degrees to practice pharmacy as to their fitness to assume the responsibilities which the scientific side of the business requires. They also make it the duty of the commission to investigate the purity and strength of the preparations kept for dispensing, which duty will shortly devolve more specifically upon the commission who are empowered to enforce the provisions of the Pure Food and Drugs law. It is also made incumbent upon the pharmaceutical commission to see that only competent qualified persons undertake the practice of pharmacy, and to enforce, by prosecution, if necessary, the various provisions of the pharmacy and poison laws. Most of the violations of these laws are simply misdemeanors. "A misdemeanor is an act committed or omitted, in violation of a public law either forbidding or commanding it." It is a mild form of crime.

The commissions above referred to are variously known as "Commissioners of Pharmacy," "Boards of Pharmaceutical Examiners," "Supervisors of Pharmacy," and other similar titles, although the most familiar title given them is "Boards of Pharmacy." Their membership varies in number from three in some States to five in many others; California and Arizona (Sec. 5, p. 2) have seven members each on their boards, while Louisiana has nine (Sec. 6). The board of New York State is composed of fifteen members segregated into three divisions (p. 3), viz: the Eastern Branch, with headquarters at New York; the Middle Branch, with headquarters at Albany, and the Western Branch, with headquarters at Buffalo.

The final appointment of the board members is usually made by the Governor, who issues the commission, although the nomination for appointment is arrived at in various ways. In many States the pharmaceutical association selects from its membership a certain number, whose names are sent to the Governor, and it is his duty to

select one or more of these names to fill such vacancies as may exist. In other States the selection is made by the Governor from the registered pharmacists of the State at large. In **South Carolina** the law provides that (p. 66) "The Pharmaceutical Association shall elect six pharmacists, doing business in the State, who shall constitute the Board of Pharmaceutical examiners of the State of South Carolina." In that State the Governor does not appoint, but the entire selection is left to the Pharmaceutical Association, which is incorporated. Prior to 1876 the Board of Pharmaceutical Examiners of South Carolina was under the direct jurisdiction of (p. 67, Sec. 4) the faculty of the Medical College of South Carolina and the Medical Faculty of the University of South Carolina, who had control of all matters relating to the licensing of pharmacist, apothecary and druggist. In **Nebraska** the law provides that "There shall be established in the State of Nebraska a board, to be styled the Nebraska State Board of Pharmacy. Said board shall consist of the Attorney-General, Secretary of State, Auditor, Treasurer and Commissioner of Public Lands and Buildings, and said board shall appoint five examiners, or secretaries, who shall be skillful apothecaries of seven years' practical experience and actually engaged in said business in the State of Nebraska (p. 5, Sec. 1), and said secretaries shall assist said board in conducting all examinations hereinafter provided for," etc. The candidates for secretaryships who are to "assist" the Board of Pharmacy are nominated by the Pharmaceutical Association. The **Delaware** law (Sec. 5) requires that the Pharmaceutical Society recommend to the Governor the names of at least six **graduates in pharmacy** of a college of good standing, and four graduates in medicine, and it shall be the duty of the Governor to appoint three graduates in pharmacy and two graduates in medicine to constitute the Board of Pharmacy.

In **Montana**, of the three members of the board, one must be a graduate in pharmacy; the other two must have not less than ten years' experience (Sec. 4, p. 3).

The terms of service of the board members also differ, ranging from three to six years. In some States one member retires each year and a new one is appointed, while in other States, as in our own, the term of the entire board expires at the same

time. In **Mississippi** the law reads that "The Board of Pharmaceutical Examiners is hereby created, to consist of five practicing pharmacists; who shall be appointed by the Governor, and whose term of office shall expire with that of the Governor appointing them" (Sec 3230, p. 1). In the **Territories** laws relating to the practice of pharmacy must be enacted by Congress. In **Indian Territory** the Pharmaceutical Association shall submit to the Chief Justice of the Court of Appeals for that Territory ten or more names of pharmacists of ten years' experience, and the Chief Justice appoints five, each year one vacancy occurring and he appointing the successor to serve for five years. In the **District of Columbia** the pharmacy law is also passed by Congress, but is enforced by the Board of Supervisors of Medicine and Pharmacy. I have been unable to secure data from **Hawaii**, the **Philippines** and **Porto Rico**, but presume the same rule applies as in the Territories.

In some States the pharmacy or poison laws, or certain sections of them, apply only to towns of a certain population, as, for example, Alabama. There the title of the law reads: "An Act to regulate the practice of pharmacy and sale of poisons in towns and cities of one thousand inhabitants." In New York that part of the law regulating the number of hours constituting a day's work applies only to cities of a population of a million or more inhabitants. (N. Y. p. 44.) The **West Virginia** statute reads: "That in any village of not more than 500 inhabitants, where there is no person licensed as a pharmacist within two miles, the board may grant a license to an assistant for that village only, not elsewhere." (Sec. 2, p. 103.)

The State of **Maryland** requires that the members of the **Maryland** Commissioners of Pharmacy shall be skilled and competent pharmacists of ten years' experience who are actively engaged in the retail drug business, and who are not connected with any school of pharmacy or medicine either as teachers, instructors or members of the board of trustees. (Sec. 4, p. 2.)

Age

Investigation of the laws of various States reveals the following statistical facts: In every State investigated, without exception, the age requirement of the Registered Assistant Pharmacist was the same, viz: not less than eighteen years. In eight States

licentiates were granted certificates at the age of eighteen, while in twenty-two the age required for licentiates was twenty-one. The average age in all States investigated was twenty years and six months.

Experience

Inquiry in forty-two States as to experience produces the following result:

For Licentiate Certificate.—Two States required but two years' drug store experience, Alabama and Wyoming; nineteen States required but three years' drug store experience; nineteen States required but four years' drug store experience; while two States required five years' drug store experience, California and Wisconsin.

For Assistant Certificate.—One State (South Dakota) required but one year's drug store experience; twenty-one States required but two years' drug store experience; while five, including California, required three years' drug store experience.

In two States, New York and Pennsylvania (and possibly Illinois), applicants for licentiate certificates must be graduates of recognized schools of pharmacy. (Bulletin Northwestern University, p. 15.)

Five States and two Territories (viz: Alabama, Arizona, Arkansas, Kansas and Missouri, Oklahoma and Indian Territory) will register graduates of recognized colleges of pharmacy without examination, and five States (viz: Georgia, Iowa, Maine, Nevada and New Hampshire) register graduates without drug store experience. (Bul. N. W. U., p. 15.)

Reciprocity.

A number of States interchange certificates with other State, especially those whose Boards of Pharmacy are members of the National Association of Boards of Pharmacy and Pharmaceutical Faculties. The question of interchange of certificates is being agitated extensively, but owing to the fact that the laws of many States will have to be amended to make it possible for the boards to grant such interchange, and also to the difficulty of establishing a uniform standard for examinations, many of the States have not co-operated in the movement.

From the best sources of information the following States and Territories reciprocate: Alabama, Arizona, Arkansas, District of Columbia, Florida, Georgia, Indian Territory, Oklahoma, Louisiana, New Mexico,

Maine, Maryland, Massachusetts, Michigan, Oregon, Ohio, South Dakota, Vermont and West Virginia—19 in all.

Preliminary Educational Requirements.

Opinions as to the preliminary educational requirements of an apprentice in pharmacy vary so greatly that an exhaustive article could be written on this subject alone. Did the apprentice of today receive the care and attention from his preceptor as the apprentice of years gone by, it might not be necessary to make the requirements so high, but apprentices are no longer "bound out," nor does the employer's interest, as a rule, extend beyond the point of procuring as much service as possible for the least amount of compensation. A brief quotation from the law of apprenticeship may interest you.

Apprentice

"An apprentice is a minor bound by due form of law to learn some art, trade or business, and when so bound is under obligation to serve the master the time of the apprenticeship. The contract should be signed by the apprentice and his father or legal guardian. The minor cannot be bound for a longer time than until he is of age. Without the consent of the parent or guardian, the contract would not be binding upon the minor. The minor cannot be bound without his consent, which consent should be stated in the contract. It is the master's duty to teach the apprentice the business he is to follow, and if agreed upon, to furnish him with food, clothing and shelter. He has no right to employ him in menial labor not connected with the business he undertook to teach him. The apprentice is under obligation to serve the master faithfully and well; to obey all lawful commands; to guard his master's property and interests, and to faithfully endeavor to learn the business and to perform what is required of him in the contract. His time of apprenticeship comes to an end when he becomes of age, or in case his master dies, at the time of such death, unless otherwise provided for in the contract. The apprentice cannot be compelled to leave the State, nor can he be assigned to any one else."—(Century Book of Facts.)

Judging from the very unprepared condition of a large number of the applicants who present themselves for examination, it is unfortunate to realize that the days of the bound apprentice to the apothecary are

over. The mutual advantage of such a system to both master and apprentice is so self-evident that I would be a strong advocate of the system of bound apprenticeship, for at least the three years the California law requires a boy to serve before he is eligible for the assistant's examination.

College Prerequisite

The question of a pharmaceutical college course being a prerequisite to eligibility for examination to practice pharmacy is receiving much attention, and in at least two States, and possibly three, it is now required that the applicant for a certificate to practice pharmacy must hold a diploma from a reputable college of pharmacy. While I advocate most strongly that every pharmacist, to acquire a thorough theoretical as well as practical knowledge of his art, should use every endeavor and make every sacrifice to attend a good college of pharmacy, and continue the course until graduation, I do not believe in making the holding of a diploma a legal requirement for licentiate certificate, thus closing the door to many worthy, ambitious and studious but poor boys and girls, who can acquire the knowledge and skill from other sources. Examples are too numerous of competent pharmacists who have never entered a college, and of incompetent ones who hold diplomas for me yet to champion the prerequisite diploma idea.

Board Revenues

I find that the source of revenue for financing the Boards of Pharmacy and enforcing the laws under their jurisdiction is universally the same. Although there has been an effort in one or two States to secure appropriations from the State Treasury, the funds of the boards are derived from fees, permits and fines. Special permits are usually very few in number, and fines are limited, unsatisfactory and distasteful, therefore the principal revenue of all boards must come from fees; largely from reregistration fees. All States require these fees, and the same amounts, viz: one dollar annually for assistants and two dollars for licentiates are the prevailing figures. As these fees give a maximum amount of protection for a minimum amount of expense (the proportion being ridiculously small when considered as a commercial investment, when the law is

enforced, as it is in California) they are cheerfully paid by the vast majority of those who derive the benefit therefrom. The constitutionality of requiring this fee was recently tested in Minnesota (the verbiage of whose law in this section is almost identical with California), carried to the Supreme Court of that State, and the requiring of such fee was declared by that court to be absolutely constitutional.

Other Court Decisions

In looking up court decisions in a number of cases on various points where decisions have been rendered that are of direct interest to the pharmacist, I have found, and quote the following:

Druggists Not Liable for Failure to Fill R.

"A druggist is not liable to a physician in damages because he once or twice declined to fill the latter's prescriptions for reasons not impugning his capacity." *Tarleton v. Lagarde*, 46 La.

Proprietor's Liability for Clerk

"One who sustains suffering or injury by taking a poison put up for him by an apothecary's clerk by mistake, instead of the medicine prescribed (in this case croton oil instead of linseed oil) has a right of action against the apothecary." *Hanford's Adm'x v. Payne*, 74 Ky. 380.

"Where a druggist is sued for mistake of his clerk in putting up a prescription, the plaintiff must show the clerk's want of due care and skill." *Beckwith v. Oatman*, 43 Hun. 265.

"Where a druggist leaves his business in charge of an employee and is absent from the State, he is liable to one injured by a prescription erroneously compounded by his employee." *McCubbin v. Hastings*, 27 La. 713.

"The fact that a prescription clerk employed by a druggist is a competent pharmacist does not relieve the druggist from liability for the negligence of the clerk in putting up prescriptions." *Burgess v. Simms Drug Co.*, 86 N. W. 307-54 L. R. A. 364.

"The seller is the one who makes the physical transfer, and an unqualified assistant was held to be liable, although he sold on behalf of his employer, who was registered. The employer would also be liable for injury caused by such sale, notwithstanding conviction of assistant." *Wheedon* L. R. 24, Q. B. Div. 683, 42 Alb. L. J. 54.

Improper Labeling

"In an action against a druggist for negligence, selling the plaintiff sulphuric acid for sulphuric ether, where the petition alleges that the drug was delivered without labeling 'poison,' as required by the State law, it was proper to instruct the jury that it would be negligence to sell such drug without the required label, without regard to whether plaintiff called for sulphuric acid or sulphuric ether, upon which point there was a conflict of evidence." *Fisher v. Gollady*, 38 Mo. App. 531.

Proprietor of Patent Medicine Responsible

"When the proprietor of a patent medicine places on a bottle containing it a label recommending it for certain diseases and directing the size of the dose to be taken, and it is shown that the dose contained such a quantity of a certain poison as to injure the patient when he took it, the proprietor is liable for the damage, whether he sold the medicine to the plaintiff directly or to a druggist to be resold, from whom the plaintiff bought it." *Blood Balm Co. v. Cooper*, 83 Ga. 457, 10 S. E. 118.

Illegibly Written Rx.

"If the prescription of a physician is so illegibly written that a druggist, notwithstanding ordinary care, makes such a mistake in mixing the ingredients as to cause or hasten the death of the patient who partook thereof, the druggist is not liable in damages." *McClardy's Adm'x. v. Chandler*, 2 Wkly. Law Gaz. 1.

Unlicensed Proprietor Conducting Drug Store

"In a prosecution for carrying on business as a druggist without a license, it was held that the burden of justification under, or proving license, is on the defendant." *State v. Horner*, 43 S. E. 89.

Delivery of Poison to Minors

"The sale or delivery of dangerous articles to children too young to understand their dangerous nature and unfit to be entrusted with such a substance, will usually render the person who delivers such article liable for any injury which may ensue from such negligent delivery." *Carter v. Towne*, 98 Mass. 567.

Chinese Selling Opium

"The Appellate Court of the State of Illinois has sustained the State Board of Pharmacy in the case against Yee Way, a

Chinese laundryman, prosecuted for selling opium. In handing down the decision the court held:

1. That opium is a drug and not an article of ordinary merchandise.
2. That any place where drugs and medicines are sold is a drug store within the law."

Trade Secrets

"An injunction will be granted to restrain a party from disclosing secrets communicated to him during the course of a confidential employment. A party may be enjoined from using a secret mode of compounding medicines not protected by a patent, when he has acquired the knowledge by a breach of contract or faith on the part of the informant. An injunction will be granted against the use by the seller of a trade secret or secret recipe for manufacturing when the vendor has entered into an agreement not to use the same in his business." *Peabody v. Norfolk*, 98 Mass.

Practicing Physicians

"A practicing physician cannot keep a drug store or sell or give away drugs which he has not prescribed." *State v. Moorman*, 86 Mich.; *Suffolk County v. Shaw*, 21 App. Div. N. Y. 146; *State v. Jones*, 18 Oreg. 256 22 Pac. 840.

South Carolina—Granting of License Held to Be a Matter of Discretion for the State Board

W. H. Smith, a graduate of the Medical College of South Carolina, Department of Pharmacy, with the degree of Ph. G., applied to the State Board of Pharmaceutical Examiners for a license to practice pharmacy and his application was refused. A writ of mandamus was then applied for to compel the board to issue the license. The only question before the court for consideration, upon an agreed statement of facts, was whether or not the board could investigate the standing of a school and if in its opinion the school was not a reputable one, refuse the license. The Supreme Court of South Carolina held that the board has this discretionary power and that its duties are not plain ministerial duties. The court in refusing to grant Smith the relief prayed for said that its action was not intended to reflect in any manner upon the medical college of South Carolina. *State ex rel. Smith v. Matthews et al.*, 57 S.E. (S. C.) 1099.

I cannot bring this paper to a close with-

out presenting one more thought for your consideration, and that is with reference to legislation. Doubtless in the future this organization, like similar bodies of our sister States, will have much to do with pharmaceutical legislation. Having had considerable experience in legislative matters, let me urge you not to lay dormant until the emergency arises, and then send a hasty letter or wire to the representative of your district requesting him to advocate or oppose a certain bill or bills before the legislature.

How many of us are personally acquainted with our Senators or Assemblymen? If not, how can we expect a letter or wire to have very much effect when there are representatives on the ground using the weight of their personal influence to defeat our object. If we are indifferent about our civic duties, then let us not find fault when laws are placed on the statute books not to our liking. The most important thing to do, and that which I most strongly advocate and emphatically urge, is for the druggists of the State, instead of fighting over time-worn topics, to "let the dead past bury its dead" and be "one of the living present"; arouse ourselves to action, and wherever possible over the State urge the nomination and election of a pharmacist to the legislature. There are men there of nearly every calling. In the last legislature there were five physicians, and these physicians are invariably on the committees to which pharmaceutical legislation is referred. Where interests conflict, will they be impartial; or will they be biased in favor of their own profession? Experience leads me to the latter belief. We are simply at their mercy without a single pharmacist in the whole body to raise his voice in our defense. Therefore, I reiterate, and repeat it with all the emphasis in my power, elect true representatives of pharmacy to the legislature to stand up and fight for legislation that will not only protect the people of the State, but will also help the pharmacist (he who receives, not only relatively but absolutely the poorest compensation of all the professions), to raise the standard of his art, and elevate him in the community in which he is always one of the most respected members.

WASHINGTON ANGELS OF PURITY

By Albert Schneider.

It was predicted in a previous number of *The Pacific Pharmacist* (June, 1907) that the troubles arising out of the Pure Food and Drug Law would come thick and fast for a time. The prediction has certainly come true. Already the Department of Agriculture has succeeded in making many fast and furious enemies and not a few lukewarm friends, who acclaim the work with a faint, half-hearted hurrah. The fact that the Department has made more enemies than friends may be a sign of efficient efforts in behalf of pure food and pure drugs, but this does not necessarily follow. There can be no doubt that the Department, through its agents, has acted in a somewhat overbearing and high-handed manner. Rulings have been made without due investigation, and often at long range. A ruling abstractly evolved in an office at Washington may not be wholly just to the actual conditions in the fields and factories in far-off Oregon and California. It is also a fact that a ruling which might be wholly just and equitable in England or some other foreign country would not be just in the United States. The rather arrogant attitude of the Department is clearly set forth in the sentence by the Secretary of Agriculture, which reads as follows: "It is clear that if manufacturers, jobbers and dealers interpret the rules and regulations in the same manner as they are interpreted by this Department, no prosecution will lie against them." Such a statement is wholly uncalled for. It may be assumed that all honest individuals and corporations will seek to conform to the rulings of the Department.

OINTMENTS, OINTMENT BASES AND CASEIN CREAMS

By Harry D. Morgan, Ph. C.*

Ointments

The subject of ointments is one well worked, but, like plowing a well-cultivated field, you're bound to turn some new soil.

Here are quoted a few lines from authorities as to what an ointment should be:

Oldberg says: "Ointments are usually soft, solid, fatty mixtures having a melting point near the temperature of the body."

U. S. Dispensatory says: "These are fatty substances, softer than cerates, of a consistence like that of butter, and such that they may be readily applied to the skin by inunction."

National Dispensatory says: "Ointments are unctuous preparations of such consistence as to permit their being applied to the skin by friction or inunction."

These are quoted to give an idea of what we are to expect. When a man buys a house his first thought is not how is it made, but what does it look like, and how useful. To the builder the first thought is, how is it made? Just so with the pharmacist—how is it made?

It was found that in many cases, especially where several ingredients entered into the mixture, the conditions surrounding the manufacture govern the product.

The various purposes to which it is to be used also give a different ointment.

An ointment may be for lubrication and not intended for absorption. In this case some substance is wanted that will fill the tissues, softening the surface and yet one that is not readily

absorbed. The cerates come under this head, as do the creams and salves made from the hydrocarbons.

Under this head ten experiments were carried on with the hydrocarbon oils and mixtures of paraffin and small amounts of white (bees') wax and water. Then mixtures of paraffin oil, spermaceti, paraffin and a small amount of lanolin gave the best result and absorbed the most aqueous solutions. Alpers' formula gives a very beautiful snow-white cream, if directions are strictly followed, not unlike in appearance zinc oxid ointment.

It was found that, withal, these ointments, while possessing properties such as whiteness, freeness from rancidity, not being easily oxidized and cheap, yet melt at too low a temperature. If sufficient wax be added to prevent their going immediately into liquefaction, they are too firm. When this too-firm ointment is rubbed onto the skin, it at first is firm, then all at once melts without giving chance for massage.

Ointments may be wanted for absorption when ointments of lard, wool fat, cocoanut oil, oil of theobroma, tallow, suet, rosin, and waxes come into use. Ointments of this class may be used for local or systemic medication, as in the instance of rosin ointment for local, while in the inunction of mercury ointments the mercury is absorbed and passes into the system.

It was found that for an ointment of this kind, suet, wool-fat and lard in equal parts gave best results and proved not to be too expensive. This was found to keep fairly well, both in heat and cold, and to take very well to metallic substances—bismuth, mercury and zinc.

Five experiments were carried on with substances that could be used as bases without having to be heated.

* These experiments were conducted in the Pharmaceutical Laboratory of the California College of Pharmacy.

Ointment Bases—Cold

No. 1	
Lanae adipis	1
Adeps	2
Good for aqueous solutions.	

No. 2	
Lanolin	1
Adeps	2
Good; readily absorbed.	

No. 3	
Petrolat alba	1
Adeps	2
Lubricant; not absorbed.	

No. 4	
Petrolatum	1
Adeps	2
Good; not absorbed.	

No. 5	
Suet	1
Adeps	2
Readily absorbed.	

The combination of suet and lard gives one of the best. This, of course, is not a good keeper and cannot be used with readily oxidized substances. White petrolatum and lard made a beautiful ointment in the combination of one part white petrolatum and two parts lard.

Where aqueous solutions are to be incorporated, the combination of wool fat one part and lard two parts gives splendid results. This base is easily rubbed into the tissues.

Five bases were made by the agency of heat.

Bases Made by Heat

No. 6	
Cera alba	1
Adeps	2
Too hard.	

No. 7	
Cera flav.	1
Adeps	2
Too hard.	

No. 8	
Spermaceti	1
Adeps	2
Too crystalline.	

No. 9

Resin	1
Adeps	2
Dark; good appearance; protective.	

No. 10

Paraffin	1
Adeps	2
Good; firm; white.	

Ointment Creams

Inasmuch as so-called "cold creams" are often used for bases for the application of sulphur, zinc oxid and mercury salts, it is well to consider these mixtures of organic and inorganic fats with water.

Take first our Ung. Aquæ Rosæ, too well known to give the formula. It is not a good keeper, and unless made from true oil of sweet almonds soon becomes rancid. This ointment is rarely found anywhere but on the prescription case, for the same reason.

Here is an ointment of water and fats which has been found to keep very well. A sample has been kept as long as three years and did not dry out nor spoil:

Spermaceti	9.0
White wax	9.0
Oil peach kernels	52.0
Po. borax	4.0
Water	35.0

Mix; sec. art. et ft. ung.

It was found that in all these ointments that it is best to have the fats at the lowest possible melting point and the water at the same temperature.

As is noticed, this cream contains $33\frac{1}{3}$ per cent water. Water materially cheapens this article without one having to "accept" the hydrocarbons.

These ointments may be considered from two points of view, since they take considerable attention of the trade:

First—As bases for local application.

Second—As cosmetics—skin foods and emollients.

Four experiments were carried out with Unguentum Aquæ—made entirely from organic fats and oils.

Ointment Bases — Heat

Addition of Water.

No. 11

Ung. aquæ rosæ

U. S. P.

Good appearance; does not keep well; good for Z. O., bism., etc.

No. 12

Spermaceti	9.0
White wax	9.0
Oil peach kernels	52.0
Po. borax	0.4
Water	35.0

Good keeper, white, cheap.

No. 13

Spermaceti	1.5
White wax	1.5
Oil sweet almonds	6.0
Lanolin	3.0
Cocanut oil	3.0
Tr. benzoin	0.2
Orange flower water	3.0

Nice looking, good odor, makes good skin food, readily oxidizes, turns yellow on exposure, due to lanolin.

No. 14

Oil theobroma	3.0
Oil olive	4.0
Borax po.	0.06
Water	1.5
White wax	0.2

Makes a good skin food; a good keeper.

This ointment ordinarily has an off color, due to the presence of the two colored oils, but it is found that upon beating it well it becomes very white.

The more stirring that is done, the whiter and fluffier will be the product.

First take the Ung. Aquæ Rosæ of the U. S. P. When properly made it is a beautiful preparation. But how long does it keep, say in the summer time? For the purpose of dispensing ammoniated mercury, etc., it is first-class. But when it comes to putting out a cosmetic, I'm afraid we turn to something

more profitable. Peach kernel oil is cheaper by far, and for creams that are rapidly used up it is found it serves equally well.

Take the combination of peach kernel oil, white wax, spermaceti, with $33\frac{1}{3}$ water. It makes a white and firm ointment that is inexpensive and a very good keeper.

Peach kernel oil, spermaceti, white wax, lanolin, cocoanut oil with water puts up a splendid skin food that could be combined with solution of resorcin as an antiseptic skin food, but it is only good while fresh, as the lanolin readily oxidizes and the outside becomes yellowish and rancid with the development of esters.

A good simple skin food is the oil of theobroma, oil olive, white wax and water combination—is a good keeper. Though a trifle hard, yet one readily melted by the warmth of the fingers.

Since the Ung. Aquæ Rosæ is looked upon as too costly as a stock cream, a great deal of thought has been given by many able chemists and pharmacists with the endeavor to furnish a product at materially less cost and yet remain a worthy substitute for the U. S. P. article. At last the hydrocarbon oils and fats—petrolatum, petrolatum oil, paraffin—were forced into service.

Ten formulæ were chosen and worked upon. One original formula was worked out and is here presented.

These are mixtures of organic and inorganic fats and oils.

Ointment Bases — Heat

Organic and Inorganic Fats and Oils with Water

No. 15

Paraffin	9.0
Spermaceti	4.5
Petrol oil	18.0
Borax po.	1.2
Water	18.0

Not very good; too soft.

No. 16	
Paraffin	9.0
Spermaceti	6.0
Petrol oil	18.0
Borax	1.2
Water	18.0

Too soft.

No. 17	
Paraffin	2.5
Spermaceti	2.0
Vaseline oil wht.	5.0
Water	2.5

Not good.

No. 18	
Paraffin	2.5
Spermaceti	2.0
Vaseline oil wht.	5.0
Lanolin	1.0
Water	2.5

Fairly good.

No. 19	
Paraffin	2.5
Spermaceti	2.0
Vaseline oil wht.	5.0
Lanolin	0.5
Water	2.5

Good appearance; fairly good keeper.

No. 20	
Paraffin	10.0
Glymol	30.0
Borax po.	0.6
Water	20.0

Too soft; not very good.

No. 21	
White wax	1.5
Paraffin oil	6.0
Borax po.	0.09
Water	2.4

Alpers'; white, creamy, looks like
Z. O. oint.

No. 22	
Paraffin	2.5
White wax	2.6
Paraffin oil	9.9
Sod bor	0.1
Water	3.8

Very good.

No. 23	
White wax	1.0
Paraffin	1.0
White paraffin oil	5.4
Oil theobroma	0.4
Borax po.	0.1
Water	2.0

Good.

No. 24	
White wax	1.0
Paraffin oil	5.0
Borax po.	0.1
Water	2.0

No good.

No. 25	
White wax	1.0
White petrolatum	6.0
Borax po.	0.1
Water	2.0

Original; a little firm; very white
and smooth.

The whiteness and beauty, together with the keeping properties of Alpers' formula, make it an especially valuable cream.

The modus operandi has been omitted from all of these, as it is supposed that any pharmacist can make an ointment of this kind if he has the formula.

A splendid ointment—taking the side of the use as a cosmetic—is the one of the white wax, paraffin, white paraffin oil, oil of theobroma and water. It seems as though the more you beat this and stir it the better the cream—it fluffs up and is creamy. This formula was taken from the **Spatula**.

The original formula added is the one in which white wax, white petrolatum, borax and water are used. It comes out beautifully white and fluffy. It is surely a good keeper and can be used with any substance as a vehicle—is easily made and not readily decomposed.

The saponification of oil of theobroma and other fats was tried as ointment bases, but without success.

A pink color often helps a cosmetic. Alkanet root gives up its color to oil, so that this may be used.

Odors of any kind may be added. It was found that the addition of a little oil of cassia to the cream will help kill the grease odor and is rather a benefit.

Casein Creams

The casein creams, while not used for vehicles, yet play an important part in the cosmetic trade of today.

Many processes are found for the manufacture of these preparations.

Experiments took place on six formulæ taken from reports, and one original was added.

Casein Creams**No. 26**

Milk, skimmed	480.0
Po. borax	2.0
Boric acid	3.0
Alum po.	8.0
Carmine sol.	
Perfume	each q. s.

Dissolve the borax, acid, alum, coloring and perfume in some water. Add to the milk; place on a fire; do not burn or scald. After settling, strain; squeeze out most of the water. Beat up till smooth.

Nice, but a tendency to be granular; dries too readily. 100 gms. obtained from this quantity.

No. 27

Milk, skimmed	480.0
Po. alum	12.0
Boric acid	8.0
Po. borax	12.0
Phenol	3 gtt.
Carmine sol.	
Perfume	each q. s.
Water	q. s.

Heat milk to 130 F. Add alum to 1 ounce water, heat to same temp.; acid and borax to 2½ ounces water and apply same temp.; mix milk and boric sol. while warm and add the alum sol. while warm. When milk has curdled, strain; if not clear add more alum sol. When all casein has been gathered, add phenol, oils and carmine sol. to tint.

Nice, flakey; probably best keeper. 115 gms. obtained.

No. 28

Milk, skimmed	480.0
Hydrochloric acid	4.0
Boric acid	4.0
Oil sweet almonds	2.0

Carmine sol.
Perfume
Water

each q. s.
qs

To milk add equal vol. of hot water to bring to 80 F. Mix HCL with 2 ounces water, add to diluted milk slowly to obtain casein in finely divided form. Let stand for one hour, then strain. Wash the casein with 32 ounces water to free from acid. Break up lumps and strain and squeeze out all the water possible. In mortar beat the casein, boric acid, swt. almond oil and perfume. If too dry, stir up with dilute alcohol to moisten; beat into smooth paste and bottle or put in tubes. Dries rapidly.

No results. 15 gms. of product obtained.

No. 29

Milk, skimmed	480.0
Ammonia water	4.0
Acetic acid	4.0
Perfume	qs
Carmine sol.	q. s.
Cold cream	equal weight

Add ammonia water to milk; let stand 24 hours. Add acid; let stand another 24 hours. Strain and add oils. Work in mortar, add carmine sol. and the cold cream; beat all well till creamy.

No success. 2 gms. obtained.

No. 30

Milk, skimmed	480.0
Tartaric acid	15.0
Borax po.	2.0
Zinc oxid	4.0
Glycerin	8.0
Carmine sol.	
Perfume	aa q. s.

Dissolve acid in 4 oz. water, add to milk. Strain. Rub Z. O. in glycerin till smooth, then rub in casein, perf. and color.

Original. 102 gms. obtained.

As you see, two are made by the use of alum to precipitate the casein, one by hydrochloric acid, one by acetic acid and one by tartaric acid.

Since cost is to be figured in two ways, we will consider both actual cost and the amount of product obtained.

The seven creams were made from the same lot of skimmed milk and under the same conditions.

It will be seen that No. 27 furnished 115 gms. of casein base from the 480 cc. of milk. This was a beautiful cream, but apt to dry out and become too granular. Even the addition of a bland oil like the oil of sweet almonds will not prevent these creams from drying out. At the same time they present a greasy feeling to the touch when oil is added.

My conclusion was that something must be added to prevent this rapid drying.

As you see by No. 30, a small amount of glycerin and zinc oxid was added. This cream, to my notion, is well worth putting up as one's own preparation. From 480 cc. of skimmed milk, 102 gms. of finished product ready to bottle was obtained.

As to the keeping of these casein creams, I should judge them not to be very good keepers, but the ones just made are too fresh for me to say for certain. At any rate I believe the addition of some antiseptic would materially assist in their preservation.

COUGH REMEDIES

By Albert Schneider

The season for cough syrups is now on. Their use is universal. Some are useful and some are not. Some are given when such a remedy is indicated and some are not. Some have curative or alleviative properties and some have not.

There are numerous kinds of coughs. The most common is the bronchial cough, due to an irritation or inflammatory condition (acute or chronic) of the bronchial passages. The cough due to pneumonitis, tuberculosis of lungs

and bronchi, and other grave conditions, will not be discussed here, as they come under the care of the physician. It is rather the simple bronchial cough, unattended by any marked systemic disturbance, which is here referred to in connection with cough remedies. Such coughs will continue to be treated by home remedies and by the remedies prepared by and kept for sale by the pharmacist. The home remedies are numerous, the most popular containing honey, syrup, sugar, fried onions, wild cherry bark, licorice and brandy or whisky. The "patent" cough remedies are innumerable, and contain for the most part some opium derivative, some diuretic and perhaps a laxative.

This may also be said in a general way of the preparations made by the pharmacists.

A cough indicating an inflammatory bronchial condition is usually accompanied by more or less systemic disturbance. The local disturbance in the throat may be the direct cause of the act of coughing, but it is the systemic condition which maintains the coughing.

The ideal cough remedy for a simple bronchial cough should accomplish the following things:

1. Allay or relieve the local irritation in the throat, and the slight general nervousness.
2. Increase the action of the skin.
3. Increase the action of the kidneys.
4. Increase the action of the bowels.

In other words, the cough remedy should contain an emollient, an anodyne, a diaphoretic, a diuretic and a laxative, combined in simplest manner possible. Numerous cough remedies are made which claim to meet these conditions or requirements, though differing in the ingredients used. Brown mixture of the U. S. P. meets the requirements very closely. It contains extract of licorice (emollient),

paregoric (anodyne), sweet spirits of nitre (diuretic), and wine of antimony (expectorant and diaphoretic). The following bulk formula is taken from the Practical Druggist and meets the specified conditions. The principal objections are its complexity, neither is it very pleasant to take:

Heroin hydrochloride	16 grs.
Benzoic acid	2 drs.
Chloroform	6 "
Oil sassafras	1 "
F. E. Ipecac	6 "
F. E. tolu (N. F. soluble)	4 ozs.
F. E. sanguinaria	4 drs.
Glycerin	4 ozs.
Tar water, saturated	16 "
Alcohol	16 "
Sugar	4 lbs.
Distilled water, q. s.	1 gal.

Dissolve the benzoic acid and oil in the alcohol, and add the remaining ingredients, except heroin, sugar and chloroform together with two pints of water. Let stand a week, with occasional shaking, and filter clear. Add the chloroform to the sugar in a percolator and dissolve it by percolating the filtrate through it. Make up to one gallon with water, in which the heroin has been dissolved. Dose, a teaspoonful every two to four hours.

The "baby" cough syrup contains no opiates, and has proven very effective.

Syr. ipecac	½ oz.
Syr. squills	½ "
Syr. senega	½ "
Syr. wild cherry	1 "
Syr. simp.	4 "

(Made from brown sugar.)

M. Sig.: From 1-3 to 1 teaspoonful according to age.

Many other combinations could be made. It must be borne in mind that, since most cough remedies are intended for children, they must be made pleasant to take, calling for the liberal use of syrups and licorice. It is, of course, also desirable that the combination should have an elegant appearance, and that the ingredients should be soluble.

Opiates should never be the chief ingredient of a cough remedy. They allay the coughing, no doubt, but they have no curative properties, and they are furthermore objectionable and dangerous because they hide the real trouble and permit it to develop.

The innumerable "cough drops" on the market have a local effect only, though some of the "grip" and cold tablets fulfill the requirements named.

It is, of course, always to be urged that a physician be consulted in the case of coughs, but since a cough remedy is insisted upon without consulting a physician, the best possible should be supplied.

Diphtheria Antitoxin in Hay Fever and Asthma.—Reuter (Proceedings of the Oregon State Medical Association).—The author used antitoxin in sixty cases of hay fever and asthma in repeated doses of 2,000 to 3,000 units. Fifty-one patients were cured; fifteen cases caused by diseases of the heart, kidney or liver, and tuberculosis, were not benefited; four other cases were only temporarily relieved. Smith used antitoxin in several cases and believes that 60 per cent of asthmatics can be benefited. He believes that when failure occurs with this treatment it is due to emphysema and other destructive processes of the lung. Gillespie reports good results in two cases. Pierce used it in twelve cases with more or less success. He thought most relief was gained in neurotic cases of asthma with anemia.—Interstate Med. Journal.

California Wine

This is one of the products which is helping to make California famous. It is more than probable that the wine industry of California will become more important in the future. The Irrigated Farms Company recently let a contract for the planting of 5,000 acres in wine grapes on the company's land near Kerman.

MEDICINAL AND POISONOUS PLANTS OF CALIFORNIA

By Albert Schneider, Ph. D.

Professor Economic Pharmaceutical Botany, Histology and Bacteriology in the California College of Pharmacy.

175. *Brunella vulgaris* L. Self-heal. Heal-all. Labiatae.

A cosmopolitan plant of European origin. Said to be useful as a gargle in throat diseases; useful in diarrhea and to check hemorrhages. It was highly prized among the common people of Europe.

176. *Bryonia alba* L. Cucurbitaceae. Introduced in garden. Thrives well. Well known medicinally. (See textbooks and dispensatories.)

177. *Butneria occidentalis* Greene. Western spice bush. Butneriaceae. All parts very aromatic. Requires further study.

178. *Buxus sempervirens* L. Common box tree. Euphorbiaceae.

An extensively cultivated evergreen shrub, native of Europe and western Asia. The wood is said to have diaphoretic properties, and a decoction is used in the treatment of rheumatism and secondary syphilis. The leaves are purgative. The volatile oil is given in epilepsy. (U. S. Disp.)

179. *Cactus* species. Cactaceae.

There are several Mexican cacti which are said to be powerful heart stimulants. (*Anhalonium lewini*.) (See also *Opuntia* and *Cereus*.) (Baily, Cycl. Am. Hort. 203.)

180. *Coffea arabica* L. Coffee. Rubiaceae.

Found in conservatories and thrives in southern portions of the State. Not cultivated commercially. Seeds contain caffeine.

181. *Calandrinia caulescens menziesii* Gray. Wild portulacca. Portulacaceae.

A fodder plant. Considered an excellent pot-herb, used for salads, etc.

182. *Calendula officinalis* L. Marigold. Compositae.

Other species and varieties common in gardens. Well-known medicinal plant. Used as a poultice in cancer, ulcers; given in scrofula, jaundice, colic, etc. (U. S. Disp.)

183. *Callitriche palustris* L. Water fennel. Water starwort. Callitricheae.

A decoction is given for dropsy and in urinary affections.

184. *Calochortus macrocarpus* Dougl. Mariposa lily. Liliaceae.

The bulbs are greatly relished by Indians, eaten raw. All relish it, children especially. This is unquestionably the most highly prized bulb known to Indians. Indians claim that the juice of *Calochortus concolor* Purdy is bad for the eyes (Hall). The bulbs of *Calochortus nutallii* are also used as food by Indians. Resembles the Death Camas somewhat.

185. *Calumba*. Menispermaceae.

This plant thrives well. Well-known medicinally. (B. R. Nichols, Calif. College Pharm. 1902. Thesis.)

186. *Camassia esculenta* Lindl. Wild hyacinth. Liliaceae.

A popular food of the Piute Indians, the bulbs are eaten. (Calif. Geol. Surv. Bot. II: 158.)

187. *Camassia (Quamasia) leichlinii* Baker. Camas. Liliaceae.

A very important Indian food plant. The bulbs are eaten raw and baked. *Quamasia quamash*, Death Camas, is very poisonous.

188. *Camelina sativa* L. False flax. Cruciferae.

Introduced weed. Once grown commercially for the oil in the seeds.

189. **Cananga** (**Unona**, **Uvaria**, **Canang.**) **odorata** H. & T. Ylang-ylang. **Ononaceæ**.

A cultivated native of China. Yields an odorous essential oil.

190. **Cannabis sativa** L. Indian hemp. **Urticaceæ**.

Escaped from cultivation. The exact medicinal value of the California-grown plants requires further careful study. Extensively grown as a fiber plant in Butte County, Calif.

191. **Capsicum baccatum**. Bird pepper. **Solanaceæ**.

Easily grown. Supplies the bulk of the cayenne pepper of the market. The name bird pepper refers to the fact that turkeys are very fond of the fruit. Used as a stimulant tonic in atonic dyspepsia.

192. **Capsicum fastigiatum**. Red pepper. (Cayenne or African Pepper.) **Solanaceæ**.

This is a common California product. (C. E. Phoenix and E. May, and A. L. Raney, Calif. College Pharm. 1903. Thesis.)

193. **Carica papaya**. Paw Paw. **Passifloraceæ**.

A common introduced plant. Grown as an ornamental plant, and for the fruit in southern California. The fruit contains a ferment papain, which acts on starch, emulsifies fat and converts albuminoids into peptones. Of great commercial interest.

194. **Carica quercifolia**. Paw Paw. **Passifloraceæ**.

Leaves contain high percentage of papain, which is much used as a substitute for pepsin. For fermentative action of juice, see Proc. A. Ph. A. XXVII: 231. 1879.

195. **Carob**. (See **Ceratonia**.)

196. **Carthamus tinctorius** L. American, false or dyer's Saffron. **Compositæ**.

Cultivated in various parts of the United States. Native of India and

Africa. Used as an adulterant of or as a substitute for true or Spanish saffron, as a domestic diaphoretic, laxative in measles, in scarlatina and other eruptive diseases.

197. **Carum gairdneri** Gray. Wild caraway. **Umbelliferae**.

Poisonous. Used by Indians. (Palmer.) (Proc. A. Ph. A. XXVII: 193, 1879.)

198. **Carya** (**Hicoria**) species. Hickory. **Juglandaceæ**.

To this group belong the pecan and the various hickories. No systematic attempts have as yet been made to introduce these into the State. Bark and leaves astringent, used in dyspepsia and intermittent fever. Leaves of **C. porcina** and of other species used medicinally as a laxative and for external application in skin diseases. The bark used in dyeing brown, yellow and green.

199. **Cascara**. (See **Rhamnus**.)

200. **Casimiroa edulis** L. White zapote. **Rutaceæ**.

Used as a hypnotic in Mexican hospitals. The seeds are used. Introduced in southern part of State.

201. **Cassia acutifolia** Del. African Senna. **Leguminosæ**.

According to H. H. Fisher (in lit), Senna has been grown successfully near Corpus Christi, Texas, for several years. Seeds obtained from Mr. Fisher have been planted in the San Francisco Garden of Medicinal Plants; they germinated promptly, but the seedlings were killed by root rot. Attempts to grow it at Salinas, Calif., met with partial success only. Further culture attempts will be made. (First, An. Rep. S. F. Garden of Med. Plants, Library, Calif. College Pharm.)

202. **Cassia marylandica** L. American Senna. **Leguminosæ**.

This plant is common in the gardens and parks of California. Used as a cathartic like senna.

203. **Castanea chrysophylla** Dougl. Chestnut. Chinquapin. Cupuliferæ.

Varies in size from a shrub to a large tree, 150 ft. high. Seeds edible. The fruit is good, but is now superseded by that of the Japanese chestnuts. (Contrib. U. S. Natl. Herb. VII: No. III, 333.)

204. **Catalpa catalpa** Karst. Catalpa. Bignoniaceæ.

Introduced as ornamental trees. The seeds have been found useful in asthma.

205. **Caucalis microcarpa** Hook et Arn. Hedge parsley. Umbelliferæ.

A poultice of this plant is used to counteract rattlesnake bites. (Calif. Geol. Surv. I: 272.) (U. of C. Agr. Exp. Sta. Rep., p. 244, 1890.)

206. **Caucalia nodosa**. Umbelliferæ.

This is also known as a rattlesnake remedy. The species require further study as to their reputed properties.

207. **Ceanothus americanus** L. New Jersey tea. Rhamnaceæ.

Cultivated. Roots rich in tannin. Leaves used as a substitute for tea.

208. **Ceanothus cuneatus** Nutt. Lilac. Rhamnaceæ.

Native plant, which should be more carefully studied.

209. **Ceanothus divaricatus** Nutt. Soap bush. Rhamnaceæ.

The blossoms are used as a substitute for soap. (Calif. Geol. Surv. Bot., II: 439.)

210. **Ceanothus integerrimus** H. & A. Lilac. Rhamnaceæ.

Seeds eaten by Indians. Bark and roots of this shrub used in malaria, catarrh and liver trouble. Good forage plant. Fruiting capsule very bitter and should be studied more carefully as to possible medical properties.

211. **Ceanothus velutinus** Dougl. Mountain balm. Snow brush. Manzanita. Rhamnaceæ.

The old Indians boil the leaves, dry

them and smoke them like tobacco. Also employed medicinally, but no definite information could be obtained as to how; perhaps it was used as a tonic. The Indians appear to be quite enthusiastic about it, and pronounce it "very good medicine." Very likely used much like **C. americanus**, which owes its properties to the presence of tannic acid and an alkaloid ceanothine. (U. S. D.)

212. **Centaurea solstitialis** L. St. Barnaby's thistle. Yellow star thistle. Compositæ.

The mature plant is said to be poisonous to horses and cattle. Becoming a very troublesome weed. Cut green it is said to make good fodder. Introduced from Europe. Requires further study.

213. **Cephalanthus accidentalis** L. Button willow. Rubiaceæ.

A tincture made of the bark has been found useful as a tonic, as a laxative and as a remedy for fevers and coughs.

214. **Cerasus demissa** Nutt. Choke cherry. (Amygdalaceæ.) Rosaceæ.

Fruits eaten fresh or dried. Green as well as nearly ripe fruit is very astringent. Inner bark gathered in large quantities for medicinal use. Said to be useful as a tonic, to check diarrhea and to relieve nervousness. The fresh berries are ground (crushed) up entire in a stone mortar and pestle. The dried fruit pulp is boiled and eaten. A decoction of the young shoots and bark is taken apparently as a beverage (coffee). Root is used medicinally. (Contrib. U. S. Natl. Herb. VII: No. III, 356.)

215. **Cerasus emarginata** Dougl. (Amygdalaceæ.) Rosaceæ.

Used much like **C. demissa**. Fruit quite bitter and somewhat astringent. Perhaps used because of the medicinal effects due to hydrocyanic acid; perhaps tonic.

PRACTICAL EXPERIENCE IN DISPENSING

By J. Leon Lascoff*

In dispensing prescriptions, in my long experience, I noticed that the same mixture or the same salve dispensed by different pharmacists according to physician's order will often look different. This is partly due to carelessness in washing out the utensils or not using clean spatulas, and partly to putting up the prescription beginning with the first ingredient and following up to the last (the way the doctor wrote it), not thinking that some chemicals will not mix with the others, or some chemical change will take place. I had a good many examples, but will write as shortly as possible and put on a very few. We will begin with the mixtures:

1. R Potass. Iodid. — 2 drachms
Spir. Ether. Nitros. 1 ounce
Liq. Ammon. Acetatis 2 "
Kalii Citri. 1 drachm
Aq. q. s. ad. 6 ounces

If it be dispensed the way the doctor wrote the prescription it will turn out a reddish colored mixture, but when dispensed by dissolving the Kalii Citr. in Aqua, adding Liq. Ammon. Acetat., then adding the Spir. Ether Nitros, dissolving the Pot. Iodid. in water and mixing both solutions, it will be a nice clear mixture.

2. R Zinc. Sulph. ½ ounce
Potass. Sulphurat. ½ "
Aq. Rosæ 6 "
Sig. Use externally.

This lotion is known as lotio alba. If properly put up it must be white, otherwise it is a grayish color. The best way to dispense this prescription is to dissolve the sulphate of zinc in three ounces of rose water and filter, then rub up thoroughly the Potass. Sulphide in a mortar (care must be taken that the mortar is clean) with

3 ounces rose water and filter, then mix gradually both solutions in a mortar and triturate until it forms a white mixture.

3. Very often we have had prescriptions for Zinc Sulphate and Plumbi Acetat. and water. The best way is to make a solution of Sulphate of Zinc and add a little Mucilage of Acacia, then a solution of Plumbi Acetat., and add a little Mucilage Gum Arabic, then mix both solutions together, and it will keep better and the patient will have better results; also it could be better used with syringe for injection, for there will be no precipitate.

4. In making a solution of Zinc Chloride it never turns out a clear solution, but by adding a few drops acid mur. dil. you will get a nice, clear solution.

5. In making an emulsion of Creosotal (or Creosote Carbonate) sometimes the emulsion gets a reddish color. This prescription was brought back, and I put up a new one and it was perfect. The third time it was a reddish color again. The same experience I learned several of my friend pharmacists had. After a few experiments with the Creosotal Emulsion I found that in making the emulsion of Ol. Amygdal. Dulcis first (adding as much Ol. Amygdal. Dulcis as Creosotal) and then adding the Creosotal, the mixture will keep better and there will be no precipitate, as there would be in emulsion Creosotal without the Ol. Amygdal. Dulcis.

6. In making Ungt. Diachylon, the salve is usually a brownish color and hard. The same salve could be made white and soft if put up in the following way: Melt the lead plaster with the Olive Oil, strain and put in a clean mortar, rub well, add a few drops of water, then add the Oil Lavender, and it will turn a nice, white, soft salve.

7. In eye-salves, when Yellow

* Read at the meeting of the American Pharmaceutical Association, 1907.

Oxid of Mercury or Red Oxid of Mercury is prescribed, it is advisable to use a chemical of a reputable house, for it is much finer, and when prescribed with Vaseline it is advisable to use Vaseline from tubes, for it is more sterile. We must keep in mind that it is to be used for granulated eyelids, and the salve for such use should be thoroughly clean and uniform.

8. Ol. Amygdal. Dulc.	4 oz.
Spermacet.	1 "
Cera Alba.	1 "
Cucumber Juice	2 "
M. f. Cream.	

It is very difficult to make a nice cream, for it will be too watery, but by adding 15 or 20 drops Liq. Albolene and rubbing thoroughly in the mortar, it turns out perfect and soft. A few drops of Albolene should always be added to a salve where some watery solution like Sol. Adrenaline Chloride or Rose Water and Lanoline is prescribed, as Albolene assists to make an emulsion.

Besides the thousand different ready-made tablets which are at present on the market, very often we have special tablets to make, either triturates or compressed.

The triturate tablets are not always easy to make in tablet mould if we do not use the right solution or excepiant. In making tablets of Codeine pure we must use a solution in alcohol and water, more water than alcohol, because the Codeine pure is very soluble in the alcohol. In making tablets Codeine Sulphate a solution containing more alcohol than water must be used. In making tablets Calomel and Soda, pure alcohol only is advisable, even **absolute alcohol**, else the tablets will turn black.

In making tablet triturates containing extracts like Ergot ($\frac{1}{2}$ grain), Ether must be used; otherwise a pill

mass will be formed and we will never be able to take the tablets out of the mould.

To make tablets compressed **ex tempore**, like Lithium Benzoate 7 gr. (I had very often prescriptions for same) or Sodium Sulphocarbolate 4 gr., we must rub up the ingredients called for in a mortar with Mucilage of Acacia, granulate through a coarse mass sieve, let it dry and compress on the tablet machine. The idea of granulating a chemical is that it should not stick to the mould, and the tablets should all be uniform and have the right weight.

College vice Apprenticeship

At the last annual meeting of the Colorado Pharmaceutical Association a paper was read on Pharmaceutical Education by Dr. Davison. In the discussion which followed, Mr. Ford said:

We ought to have more colleges of pharmacy. We ought to have one in Colorado. It would be well patronized, and would be one way of remedying the present shortage of clerks. A man cannot go into the drug business now and learn it in the store. No one who can look back over a period of 10 or 12 years but who knows there is not a drug store in the State of Colorado where one could go in and learn anything about pharmacy, because it is not practiced in detail so that a boy could learn it. Time was when a boy could be taken into a drug store where pharmacy was practiced in detail, and, if he had a competent preceptor, he could within a few years become a most excellent pharmacist. But that time is past, and those opportunities are no more. What the boy has to have now is a school of pharmacy. Then, after he is out of school and receives the practical experience in a store, he is of value.

The question of popularizing the U. S. P. and N. F. received earnest consideration.

The next meeting is to be held at Glenwood Springs again.

Scientific Notes

THE ULTRA-MICROSCOPE AND ULTRA-MICRO-ORGANISMS

Much has been said and written about the ultra-microscope, which has been made known through the efforts of Siedentopf and others. By means of this instrument it was thought to be possible to discover ultra-micro-organisms, that is, organisms entirely too small to be seen by means of the ordinary compound microscope. The earlier hopes have thus far not been realized. It is true that the contrast effects between light and dark, upon which the action of the new microscope depends, make it possible to observe microscopic details which were heretofore not discernible, but it has not been possible to actually see organisms which may not also have been seen through an ordinary compound microscope of good definition and of high magnifying power. Repeated observations have thus far failed to discover any ultra-microbes, though it is not absolutely denied that they do not exist. It has thus been possible to develop all known microbes in culture media, and to observe them macroscopically (in mass, collectively) as well as microscopically.

It may, of course, be possible that many of the supposed ultra-micro-organisms are obligatively parasitic, and cannot, therefore, be induced to develop upon artificial (dead) organic culture media, but it is not reasonable to suppose that all are of that nature, and it would, therefore, be reasonable to suppose that such organisms should accidentally have developed in artificial media and thus be made visible to the unaided eye, even though the individuals should be too small to be differentiated optically by means of the compound microscope.

The subject may be summarized as follows:

1. The ultra-microscope is a marked improvement on the ordinary compound microscope, dependent upon refraction contrasts.
2. It is not possible to discern minute objects which cannot also be seen through the compound microscope. It merely brings out details more clearly. It is a difference in definition, which may be compared to the difference in definition between the low and high power of the compound microscope.
3. Ultra-micro-organisms have thus far not been discovered, though it has been suggested that certain diseases, as whooping-cough, small-pox, hoof-rot of cattle, mosaic disease of tobacco, infectious chlorosis of the malvaceæ, etc., are due to invisible organisms, though it has been stated that these diseases are due to pure chemical changes.

Tropococaine seems to be one of the favorite anæsthetics for spinal anæsthesia. It appears to have advantages over the known allied substances. It is used in doses gr. $\frac{3}{4}$ to gr. 1. Schwarz, who has used it quite extensively (*Presse Medicale*), speaks very highly of it, but says that it is contra-indicated in children under 14 or 15 years of age.

Professor J. U. Lloyd has recently called attention to the fact that many fluid extracts after they have deposited an appreciable amount of precipitate, contain a larger percentage of alcohol than when they were first made. This is what would be expected, but we believe it is one of those self-evident things which most persons have overlooked, and goes to show that a fluid extract or tincture or some other preparation carrying much extractive mat-

ter is apt to contain a larger percentage of alcohol at one time than another. This suggests the necessity of making provision in the administration of the Pure Food and Drugs Law for such changes as are apt to take place in the composition of all galenicals. Without some provision of this kind pharmacists are liable at any time to get into trouble.

Copaiba

It is said that the supply of copaiba at present is limited to an extent which almost amounts to a famine. Because of this, adulteration has reached a very high pitch. The common adulterants are African copaiba, oil of turpentine and gurjun balsam. It is said that parcels containing as much as 50% castor oil are being placed upon the market. It is possible to adulterate copaiba in such a manner as to make it extremely difficult to detect the adulteration. It is very doubtful if its medicinal value warrants the price and importance which it now receives.

Murac

The name murac has been given to a commercial product resulting from the treatment, by a new chemical process, of the latex of certain plants of the saptoaceæ family, said to be abundant along the Amazon River, in Venezuela and the Guianas, some of the West India Islands, Africa, Madagascar and Australia. These trees are referred to as yielding latex freely, so that the supply is practically inexhaustible. Thus far, however, the new process has been applied only to balata. Murac is referred to, not as a substitute for india rubber, but as being serviceable for use in connection with low grade qualities of rubber and bringing them up to a higher standard. Certain rubbers, for example, are mentioned as

having more than doubled in value by the addition of a few pence worth of murac to a pound in weight of the rubber to be improved. Murac is, however, vulcanized alone, and may be used for many mechanical purposes without the employment of other rubber, under treatment similar to that given to gutta-percha. It is also capable of being used in liquid form, particularly for water-proofing.—India Rubber World.

Sources of Arsenic.—Among the most important sources of arsenic may be mentioned the following: The silver mines of Saxony, Germany, those of tin and pyrites of England, arsenicopyrites or mispickel of Spain, and auriferous mispickel in the Province of Ontario, Canada. The United States is said to consume more than one-half of the world's production of metallic arsenic, white arsenic (arsenious acid), orpiment, and red sulphide of arsenic. Spain in 1905 exported 1,750 tons of white arsenic to the United States and 246 tons to France. Germany produces the largest quantity of metallic arsenic and arsenious acid.—Paint, Oil and Drug Review.

A New Tasteless Preparation of Cascara Sagrada

Powdered cascara sagrada, 500 Gm., is macerated three or four times in succession for two or three hours with 1.5 litres of water and pressed. The filtered liquid is evaporated in a vacuum to complete dryness. The extract is powdered and exhausted with absolute alcohol. To the clear dark brown alcohol liquid, alcoholic solution of potash is added as long as a precipitate is formed; this is then collected, washed, and dried. It is said to be odorless, free from bitterness, but an active purgative.—Canadian Druggist.

Extracts from Pharmaceutical Press

COMMENTS ON THE REPORT OF THE A. PH. A. COMMITTEE ON DRUG MARKET AT THE NEW YORK MEETING

What Are Adulterated Drugs?

By Charles E. Caspari, Ph.D., Chemist for the Meyer Brothers Drug Company.

Reports from all over the country have shown that the passage of the Food and Drugs act has had a very wholesome effect on the purity of drugs and chemicals in general. This was especially apparent from the report of the Committee on Drug Market of the A. Ph. A., presented in September at New York, but there are still several articles which it is extremely difficult to procure of the standard fixed by the U. S. P.

Too much attention can not be paid to the difference between adulteration and variation from standard. It is manifestly unfair to brand as guilty of adulteration a man whose goods vary only slightly from the official standard. In a case in Massachusetts a man was fined \$100 and his reputation as an honest dealer ruined because his distilled water contained a few more parts of solids per 100,000 than the Pharmacopœia permitted. Such an administration and enforcement of law is **pro bono publico** worse than no law. In laws which are as far-reaching as food laws, and which are capable of working tremendous hardships and injustice to honest dealers, it is unquestionably the spirit and not the letter of the law which should be enforced. The usually ignorant minions of the law whose duty it is to see that the law is enforced, must make some showing in order to earn their salaries, and hence their one object is to obtain evidence, however insignificant it may be, which

might assist in a prosecution. To show how hairs are split, the United States Government, which *a priori* is infallible, refused recently to accept a lot of Syrup of Iodide of Iron which differed from the requirements of the U. S. P. only in that it contained 4.91% of ferrous iodide instead of 5%, a difference which was well within the limit of experimental error, especially of the average Government chemist. It seems strange that the party offering that lot of Syrup of Iodide of Iron was not prosecuted for misbranding.

Another matter which requires attention is the correct labeling of such articles which, while far from being adulterated, do not possess the physical constants which the Pharmacopœia has fixed for them. This refers especially to essential oils. How should an oil be labeled, the specific gravity of which falls slightly below that required? It is not permissible to label it U. S. P., nor is it sufficient to express its true gravity on the label. The label must state that it is "for technical use." This is so evidently wrong that it seems ridiculous to consider it at all seriously, and yet it is a condition which must be met. The Government will be right in its ruling only when it has improved upon nature in growing plants which will yield oils possessed of physical constants identical with those required by the U. S. P.

Dr. H. H. Rusby, who has been appointed by the United States Department of Agriculture to assist in the inspection of drugs for the port of New York, reported that the quality of imported drugs has improved wonderfully, and he spoke especially of *asafoetida*. The report of the committee above referred to touches on *asafoetida*,

and it was found that out of 142 samples examined, 15 only met the requirements of the U. S. P. as to solubility in alcohol. My own results, as chemist for Meyer Brothers Drug Company, show that a U. S. P. asafoetida can be obtained, though the market is flooded with inferior grades. If these poor varieties of asafoetida do not enter this country through the port of New York, then they must certainly enter by way of some other port, and steps should be taken to prevent their entrance. The same is true, to a less extent perhaps, of jalap.

A great deal has been said and written about the standard of the U. S. P. being too high in the case of many drugs containing alkaloids, especially in the case of aconite root, belladonna root and leaves, ipecac and jaborandi, and the report of the committee of the A. Ph. A. shows that many samples of each drug were found to be deficient in alkaloid, but at the same time many were found which exceeded in alkaloidal content the standard of the U. S. P. It is all a question of cost, and I have found that whenever one is willing to pay the price for it, the superior article can always be found, and there is no excuse for using a drug which is below standard strength. — Meyer Brothers' Druggist.

THE PARCELS POST

How It Affects the Country Storekeepers in Europe

C. W. Arthur, a well-known magazine writer, on returning from a tour of Europe, writes that he was greatly surprised to find an absence of retail merchants in all of the small and moderate sized towns in the nine different countries that he visited.

Couldn't Buy What He Needed

The inability to purchase small requirements first brought to his notice

how the public demand could be satisfied without the well-equipped retail store such as is found in every American town of 300 population and upwards, and presented a problem that he determined to investigate.

Small Country Store Killed

It appeared that the ordinary citizen was unable to give much information. The older residents stated that formerly there existed such stores, but they had all gone out of business and now all kinds of supplies were purchased from the city merchants (mail-order houses).

Orders were sent by letter or postal card. Parcels post and rural delivery or postal free delivery delivered your purchase at your door.

Further investigation and inquiry in the large commercial cities convinced Mr. Arthur that in the opinion of the most broad-minded business men parcels post and rural delivery (the two proposals are always found yoked together) ruined the retail business and home trade of European countries until today nothing but the smallest necessities can be obtained from the little "shops" that still exist in the villages and small towns of the rural districts, or even small manufacturing towns.

In their places in villages and towns of interest most visited by American tourists there has sprung up a large number of little shops with curios, antiquities, etc. (mostly of recent make), to supply the tourists' craving.

Now, to make the application of these facts to our own situation, is not this the question which must be settled in the present Congress if Postmaster-General Meyer presses his destructive parcels post scheme:

Do we want to adopt European methods and accept European conditions that will surely obliterate our

honorable, industrious, intelligent retail merchant class?

Let the answer be sent to your **Congressman and Senators at Washington**. If you have not made these officials acquainted with your views on this important subject, write them **now**; don't let another day pass without doing your duty to yourself, your brother druggists and your country.—N. A. R. D. Notes.

New Regulations for the Sale of Poisons in Sweden

The new poison regulations in Sweden divide poisons into two classes: the one comprising poisonous drugs and their products, whilst the second includes aniline oil and poisonous colors or preparations of same. To the latter class belong: arsenical colors, such as imperial green, Scheele's green, and colors containing one or other of the following metals in a non-metallic condition: antimony, barium, lead, cadmium, cobalt, copper, chromium (in the form of acids), mercury, nickel, tin, uranium and zinc. Gamboge, picric acid, Victoria yellow (dinitrocresol) and Martin yellow (Manchester yellow-dinitronaphthol), compounds of cadmium, cobalt, copper (e.g., copper sulphate), tin (protochloride and chloride), uranium zinc (e.g., sulphate and chloride), also belong to the same category. The following, however, are excluded from the list: the oxides of tin and zinc, barium sulphate, silicates of all kinds, and driers in boiled linseed and varnish, though preparations of zinc oxid are classed as poisons, together with all dyestuffs and preparations thereof. The following must not be offered for sale: Cosmetic preparations or other toilet articles which contain lead compounds or poisonous colors, children's toys colored or printed with poisonous colors or otherwise contain poisons, paper, cardboard or mill-board found to contain 0.2 mgrms. of metallic arsenic in a sample measuring 200 sq. cm., fabrics containing the same quantity per 50 sq. cm., or toys the same quantity of arsenic in the coloring matter scraped from a surface of 100 sq. cm. Edibles must not be offered for sale if they contain poisons or semi-poisons (e.g., zinc oxid), or are packed in direct contact with a wrapping material colored or otherwise treated with

poisonous substances. No other metal foil than tin foil containing less than 1 per cent of lead is to be used for packing. The same prohibition applies to vessels or utensils (intended for the preparation of food) that will yield up lead to a 4 per cent solution of acetic acid when boiled therewith for half an hour, or that are tinned with an alloy containing more than 1 per cent of lead (except the alloy has been used for soldering, in which case it may contain 10 per cent of lead). The following coloring matters are admitted for use in confectionery, provided they do not contain arsenic or other poisonous impurities: White—bone ash, white bole, gypsum, magnesia, chalk, starch, talc; black—bone black, lamp black, India ink; brown—cutch, kino, sepia, burnt sugar; yellow (or orange)—barberry root, Persian berries, fustic, curcuma, quercitron, annatto, marigolds, saffron, tropeolin, weld; red—alkanna red, red wood, dragon's blood, eosine, fuchsine, carmine, madder, rose leaves, safflower, sandalwood, etc.; blue (or violet)—Prussian blue, indigo, indigo armine, campeachy wood, methyl violet, etc.; green—chlorophyll, malachite green, and mixtures of the foregoing blues and yellows; metals—gold and silver leaf or shell silver, all of pure metal, leaf albumen. The importation of colors is not affected by the regulations, but remains subject to the regulations already existing; but, of course, the prohibition of the sale of the various articles enumerated above will have the effect of lessening the importation of such colors from abroad.—*Farben Zeitung*.

The Howl "Substitution"

"What right, what business, what motive beyond that of greed, can the publishers of this country have in their almost unanimous attack on the honor and integrity of the retail and wholesale business men of this country?" asks a prominent advertising man. "Such insinuations, amounting to charges of downright dishonesty against the merchants of the country, have but one result—a reaction against advertising value."

What a beautiful picture is presented by the majority of publications who will flaunt in pages and double pages the great mining schemes, the marvel-

ous air-line railway from Chicago to Heaven, helping the swindler to rob their own readers, and in the next issue holding up their hands in holy horror and shockedness over the evil ways of the retail dealer who exercises his ability as a salesman to induce the customer to buy an article different from what he asked for. And then very gravely and emphatically warns the great public to beware of the dealer.

Beautiful picture, isn't it? Aren't you glad you're an advertising man?

Did you ever hear "Ivory Soap" yawping about substitution?

Did you ever hear "Sapolio" wailing over substitution?

Did you ever hear "Pears Soap" lamenting over substitution?

Pretty successful propositions, too, aren't they? Good advertisers—because they tell the truth and keep up an aggressive effort.

Measure up the man who howls "substitution" and you will find he produces an inferior quality, and he tries by the veneer of advertising virtue to create and maintain a market, purely on advertising claims rather than practical merit. Then when his market is touched by an article of merit, he immediately claims it's not fair play, that his market has been disturbed, and calls upon the publishers to help.—*Paint, Oil and Drug Review.*

Vinegar as an Antidote for Phenol

Dr. Carleton of New York has found that vinegar is an excellent antidote for phenol. Applied to surfaces burned by the strong acid, it at once removes the bleaching and anesthesia and prevents the subsequent formation of an eschar. It is also serviceable when the poison has been swallowed. In this case the vinegar should be given freely mixed with an equal volume of water and the stomach washed out as quickly as possible.—*Practical Druggist.*

What is Man?

The Stomatologist says:

"All the constituents of a 150-pound man are contained in 1,200 eggs," said the chemist.

"There is enough gas in a man," he went on, "to fill a gasometer of 3,659 cubic feet. There is enough iron to make four nails. There is enough fat to make 75 candles and one large cake of soap. There is enough phosphorus to make 8,064 boxes of matches (size of box not given).

"Furthermore, that man who is aeronautical will be pleased to know that there is enough hydrogen in him to fill a balloon and carry him up in the clouds.

"The remaining constituents of a man would yield, if utilized, 6 cruets of salt, 1 bowl of sugar and 10 gallons of water."

The Pharmacist and Patent Medicines

Pharmacists, if they wish to pose as professional men, cannot longer avoid their responsibility in connection with the sale of so-called proprietary remedies. They should collectively, and if this is not practicable, they must individually inquire into the nature and composition of the remedies they dispense. If found to be harmful, or not as represented, they can no longer shirk responsibility by hiding under the time-worn excuse that the public demands them, and the public demands must be supplied—*M. I. Wilbert, in A. J. P.*

A Quick Filter

A quick filter is appreciated in every well-regulated pharmacy.

Take a clear piece of chamois skin free from thin places; cut it off to the desired length; wash it in a weak solution of soda or any alkali, to remove the grease, and rinse thoroughly in cold water before using. Tinctures, elixirs, syrups and even mucilages are filtered rapidly. A pint of thin syrup will run through in four or five minutes. By washing thoroughly after each time of using it will last a long time.—*Practical Drug Topics.*

Formula for a Toilet Ammonia

Dr. I. V. S. Stanislaus, writing in *The Apothecary*, declares that for toilet purposes ammonia should not be over six per cent in strength. It is customary, he says, to color these ammonias either green or purple, and they are perfumed generally with rose, although some manufacturers make an attempt at giving them a violet scent by adding a tincture of orris root. Perfumes of the synthetic variety answer the purpose much better than the natural products. Dr. Stanislaus offers the following formula:

Stronger ammonia water, 30 fluid ounces.

Distilled water, previously boiled and cooled, 98 fluid ounces.

Add to this:

Compound tincture of vanillin, N. F., 1 fluid ounce.

Oil of geranium, 10 drops.

Dissolve in this solution:

Potassium bichromate, 120 grains.

Add a few drops at a time:

10 per cent solution of Prussian blue with constant agitation until a delicate green color is obtained. This color is permanent.

Other perfume agents may be used, says Dr. Stanislaus, but the above is very acceptable.

Disinfectant for Sick-Room

Camphor	20 parts
Chlorinated lime	50 "
Alcohol	50 "
Water	58 "
Eucalyptus oil	1 "
Clove oil	1 "

For use, place a little of the mixture upon a plate.—**American Druggist.**

Dandruff and Beginning Baldness

Resorcin	1 drachm
Beta naphthol	½ "
Chloral hydrate	2 "
Tincture of cantharides	4 "
Tincture of capsicum	1 "
Castor oil.	½ to 3 "
Cologne water	4 ounces
Bay rum, q. s. to	1 pint

Editors are judged by what they put into their papers; but they know that this is only half just. Editors keep out of their papers much more than they put in, and this is a point which readers overlook.—**Druggists' Circular.**

STORAGE OF VACCINE AND ANTI-TOXINS.

As is well known, all biological products deteriorate in the course of time. Smallpox vaccine kept at the temperature of the body is valueless after a few days. According to Elgin, it may be kept for years at a temperature of about —5 degrees C. without the least impairment of strength. Our own experiments have shown us that diphtheria antitoxin, under the ordinary conditions of the market, loses about 2 per cent of its potency per month. When kept at a little above the freezing point the deterioration is practically nil. We have no way of gauging the activity of bacterial vaccines and no method of accurately determining the loss in strength on keeping, but we do know that there is some loss, and we know that temperature and light are the most active influences in this direction. The lesson to be learned from this is that **all biological products should be kept as near the freezing point as possible**, and the pharmacist who displays packages of antitoxin and vaccines in his shop window, or keeps them in a show-case, is what our President might call an undesirable citizen, not so much from the standpoint of the manufacturer, as of the patient who must suffer the result of not receiving the full benefit of a product which had been kept under proper conditions. An efficient refrigerator is absolutely necessary in every drug store which handles biological products. This necessity will increase with the increase of our knowledge of immunity. For specific infections drugs will be used less and less, and the use of specific curative and immunizing materials will increase in proportion.—Dr. A. P. Hitchens, in A. J. P.

President Roosevelt Criticised

President Roosevelt, in his message to Congress, gives the credit of the "pure food law" to the Pure Food Commissioners of the United States. This is news indeed to most people, especially to the National Grocers' Association and the associations of the various States which have worked for years for such a measure. We know that there would be no pure food law on the statute books of this State if it were not for the grocers, and even then, as in the Federal Congress, the grocer had to compromise and give up the fight for net weights and take what they got or lose all. Some nature fakirs, undesirable citizens, mollycoddles, or those whom he would characterize with an uglier, shorter name; have got the ear of the President, and robbed those who have led every forlorn hope for years of the credit and given it to those who were unheard of when the fight was on. No one can deny, if it were not for the grocers of the United States there would be no pure food law now on its statute books. Let us write these words down, as Luther did his sentiments in his discussion with Zwingli, and maintain them in the face of all who deny them, no matter how exalted.—Tacoma Forum.

Cut Rates Are No Longer the Fashion of the Day

Pharmacists seem to be among the first to realize the gradual change in public sentiment. A prominent pharmacist of Philadelphia, who has built up trade for half a dozen stores as well as put aside a snug fortune, declares that while he made his start as a cut-rate druggist he could not meet with the same success today, for the public has learned its lesson in the cut-rate business. We hear the same story from experienced pharmacists in all sections of the country, and we also know that the druggists everywhere are slow to take advantage of any opportunity they may have to cut prices.—Meyer Brothers' Druggist.

THE PACIFIC PHARMACIST

\$1.50 a year Subscribe yourself and get your friends to do the same.

Severe Punishment for Adulterating

In a recent issue of the *Progres du Nord* there is printed an official extract from the judgment rendered in the case of one "Dubois, Francois Auguste, twenty-five years of age, born at Sainghinen-Weppes, the 2nd of August, 1881, profession of merchant of butter, living at Wavrin, in the hamlet of Don." The extract gave full publicity to the fact that the dealer named had been convicted of a violation of the law pertaining to the commerce in butter, and had been sentenced to one month's imprisonment and a fine of 500 francs. It was also decreed that the judgment be published on the front page of three of the leading local journals, and in posters displayed on the door of the house of Dubois and on the door of the office of the mayor of the commune. The size of the type in the poster is specified as full-faced three-line pica for the names of the judge and the criminal, a smaller type of a specified size being used for the remainder of the poster.—Paint, Oil and Drug Review.

Crushed Olive-Stones

Some idea of the extent of the business in crushed olive-stones may be gathered from the fact that in 1906 about 1,000 cwt., valued at £643, were exported from the district of Magnesia, in Greece, to "other countries," the quantities exported in 1905 and 1904 being 750 cwt. and 100 cwt. respectively. The exports to other parts of the Hellenic Kingdom, however, were considerable.

The above figures show the nature of the business in this product, which solely finds an outlet in the adulteration of pepper, gentian, licorice, and other powders. Indeed, the substance known as "pepperette" or "poivrette" is composed of practically nothing else but crushed olive-stones. It would be interesting to know the exact destination of the above exports, but on this point the British Consular report, from which we take the above figures, is curiously silent, although analytical tables are given showing the various countries to which the principal articles were sent. Greece is not alone in this nefarious business, as Italy is also an acknowledged supplier, and as a secret buyer the purchases of the United States are not inconsiderable.—Chemist and Druggist.

CHEMISTS CRITICIZE DR. WILEY'S RULINGS

On Friday, November 8th, there was a meeting of the New York Section of the American Chemical Society, at which the arbitrary rulings of Dr. Wiley, Chairman of the Board of Food and Drug Inspection, were the chief topic of a long discussion, which ended in the adoption of the following resolutions:

WHEREAS, The Food and Drugs Act of June 30, 1906, is generally approved, and in the opinion of the New York Section of the American Chemical Society it is one of the most important measures which has been taken for the protection of the public; and

WHEREAS, On the other hand, we can not but feel that the Rules and Regulations published from time to time by the Department of Agriculture, for carrying out the provisions of this act, are not in full accord with the knowledge and experience of some of the members of this Section, who are experts in these matters, and inasmuch as there is a conscientious difference of opinion concerning the same; therefore, be it

Resolved, That we respectfully request the Honorable Secretaries of Agriculture, the Treasury and Commerce and Labor, who are given the authority to administer this law, to suspend the publication of these decisions temporarily, and before taking further steps in this direction to consult with a carefully selected committee of experienced chemical manufacturers and scientists, recognized as authorities in these fields.

On October 25th, the New York Section of the Society of Chemical Industries passed similar resolutions,* from which it would seem that the manufacturers composing that society are determined not to submit further without protest to the injustice from which they have suffered by the arbitrary action of the board, of which Dr. Wiley is the chief.

It requires more or less courage for a food or drug manufacturer to even lodge a complaint under the circumstances, for Dr. Wiley, virtually, has it in his power to destroy their business reputations, and, naturally, it is not policy to enrage him. But it is a disgrace for a free country to put so much power in any man's hands, it matters not how good and great he be, or under what pretense it is done.—**National Druggist.**

Trade Secrets Are the Property of Employers

An interesting legal decision has been rendered by the New Jersey Court of Errors and Appeals in the case of the Vulcan Detinning Company against the American Can Company. The litigation has extended over a series of years and arose out

of the use by the American Can Company of a process of separating and recovering tin and steel from tin cans and waste scrap which the Vulcan Detinning Company claimed to own. This is an electrical chemical secret process which was purchased in Holland by the organizers of the Vulcan Company. This company, soon after its organization, began to buy scrap tin from the American Can Company and made large profits in detinning, but the American Company established a plant of its own for that purpose, and, it is alleged, employed two former superintendents of the Vulcan Company and another of its employees, who had become thoroughly familiar with its processes. The Vulcan Company applied for an injunction, and the case went to trial. In the lower court it was decided adversely to the Vulcan Company, but an appeal was taken and the decision handed down sustains the Vulcan Company on every point. In other words, the New Jersey court finds that the former employees of the Vulcan Company who received knowledge of the secret process in confidence became its trustees, with all the duties and obligations of such position, and that their trusteeship continued after their period of employment expired.

This is a matter of importance to every employer of labor. The haunting fear lest trade secrets be disclosed to rivals through employees who are unscrupulous enough to sell those secrets along with their services, would be set at rest if the courts would take the same view as now taken by the New Jersey court, of the trust nature of such confidential knowledge imparted to a workman in the course of business.

Wholesale druggists report a year of general prosperity in all lines that they handle. Especially is this true of the better grades of toilet goods in which sales have been of large proportions. During the greater part of the year the purchasing public has had plenty of money to buy what are commonly regarded the luxuries of life, and that condition favors a generous business for the druggist.—**Paint and Drug Review.**

WHEN HE STAMMERED

Employer (engaging clerk)—But do you always stammer like that?

Applicant—N-n-n-oo, sir; only w-w-when I t-t-talk.—**Sourire.**

THE DEATH OF LORD KELVIN

With the death of Lord Kelvin—long known as Sir William Thomson—a master in science has gone from among us, but it will be long ere the impetus of his fruitful life ceases to influence the world of knowledge. His was one of those cases in which the promise of the future was early shown. The son of a distinguished mathematician, coming of a vigorous Scotch-Irish farmer stock, Thomson was born at Belfast, June 25, 1824. While yet young his father removed to Glasgow to take the chair of mathematics in that university, and there young Thomson received his early education. From Glasgow, where he had already made himself known to science by his mathematical and physical papers, he entered St. Peter's College, Cambridge, where he took his degree in 1845 with the highest mathematical honors. Shortly after he was elected to a fellowship in his college, which he retained until 1852, when he vacated it on his first marriage, according to the university regulations prevailing at that time. He was, however, restored many years later to his fellowship, under a statute of the college which permits the election to a fellowship of men eminently distinguished in science. His subsequent career was one long triumph of illustrious work fitly recognized with such honors as his sovereign, his country and the scientific world at large had it in their power to bestow. First came his election at the early age of 22 to the chair of natural philosophy at the University of Glasgow, which post he held until his retirement in 1899. The story of his life's work has been told too often to need repetition here. There are few, we imagine, who are ignorant of his triumph in overcoming the difficulties incident to the working of the Atlantic cable, whereby the possibilities of submarine telegraphy became opened to their present extended application. It was for this work that he was raised to the dignity of knighthood, the adornment of which dignity he far outpaid in kind. In 1891 there came to him the great distinction of being made president of the Royal Society and in the following year a peerage was bestowed on him. His invention of the mirror telegraphic receiver and the siphon telegraphic recorder, his improvement of the mariner's compass, his method of deep sea sounding by means of piano wire, and many other

achievements in applied science, are now ancient history.

By his instrumentality in the establishment of the natural sciences tripos at Cambridge, moreover, he aided materially the process of medicine, for the biologic sciences form no insignificant part of the optional curriculum for that tripos, and it is safe to say that without the natural sciences tripos the splendid awakening of the University of Cambridge as a medical and as a scientific school, developed as it has been under the fostering care of the late Sir George Murray Humphry and Sir Michael Foster, would hardly have taken place. To Sir William Thomson, too, medicine owes a debt of gratitude, in that to him is due the first opening of research laboratories to students. When he became professor of natural philosophy at Glasgow, and was entering on his great work on the electrodynamic qualities of matter, about 1847, he called on his students to aid him; and from that time on the principle of laboratory work, instead of the mere attendance on didactic lectures, expanded until now we realize that without practical laboratory work any system of instruction in any of the sciences must be inadequate indeed.

There is one other phase of Lord Kelvin's character that in these present days is particularly worthy of note. He, at least, did not find a thorough acquaintance with the deepest problems of science and a conviction of a first great cause, with its inevitable corollary of a future life for man, incompatible. Addressing medical students recently, he said: "Do not imagine that by any hocus pocus of electricity and viscous fluids you can make a living cell. You must never think of the living men and women and children, with whom you will have to deal in your daily work, as mere laboratory specimens, but as human beings."

And earlier, in his presidential address to the British Association for the Advancement of Science, in 1871: "It is also impossible to conceive either the beginning or continuance of life without an overruling creative power, and, therefore, no conclusions of dynamic science regarding the future condition of the earth can be held to give dispiriting views as to the destiny of the intelligent beings by which it is at present inhabited."

It is certainly worthy of note that even in these latter days a man of science, of

undeniable preëminence in the branches that more perhaps than others have led in many minds to this **impasse** between the modern knowledge and the ancient faith, finds in the place of contradiction a compelling unity.—**Journal A. M. A.**

THE DEATH OF W. H. BURKE

We learn with deep regret that Wm. H. Burke of Detroit, proprietor of several drug stores in that city, died by his own hand on the 17th of December. Mr. Burke was an enterprising and aggressive business man, not much over 40 years of age, and when we saw him in New York a few months ago appeared to be in the prime of life, physically and mentally. Like many men of his temperament, he greatly overworked himself, thereby bringing on nervous exhaustion, insomnia, and in a short time insanity, to which last condition is to be attributed the taking of his own life.

Mr. Burke had been a very successful pharmacist. He built up in a comparatively short time a large drug business, controlling, up to the time of his illness, four stores. While others were associated with him in this enterprise, his was the dominating spirit. His energy and capacity developed the business in the several stores. Unfortunately he overestimated his ability to stand the strain which this involved. A man of less ambition and less capacity, with his splendid physique, might reasonably be expected to attain the full age of three score years and ten, but his life was cut off in its very prime through over-ambition.

It is gratifying to note that, while intensely energetic in pushing his own business, Mr. Burke took a lively interest in matters affecting the entire drug trade. We quote the following by Chas. F. Mann of Detroit to N. A. R. D. Notes:

To me Will Burke was the peer of Michigan retail druggists. He was one of the few men who built up the Detroit local

association under the banner of the N. A. R. D. He interested himself in everything that pertained to the retail drug business, and while his great ambition to be at the head of an immense business institution was uppermost in his mind, his interest in pharmacy in all its phases was complete.

Mr. Burke was a rare type of the modern big retail druggist who took active part in the work of the local and State associations. At the last annual meeting of the Michigan Ph. A. he took time to renew his interest among old friends and admirers, and was one of the moving spirits of the meeting. He was for three years a most active, energetic and efficient secretary of our State organization. For years Mr. Burke has not missed a meeting of the A. Ph. A. and was active in the work of that body.

The following from a symposium on "The Inventory," in the Bulletin of Pharmacy for December, will have a peculiar interest at this time, because it is probably the last contribution that Mr. Burke made for the benefit of his brother pharmacists:

I feel certain that if pharmacists knew the very great profit there is in knowing the exact amount of stock carried, as well as its condition and other facts that are discovered by taking an inventory, they would accept the task in a more cheerful manner.

If it did no more than familiarize the stock-takers with prices, sizes and other information that must be absorbed during the process, it would be time well invested. Every inventory brings to light a great many goods that should be moved; these goods will not be sold unless they are noticed, and they will not be noticed unless an inventory is taken.

Cost Prices on the Goods a Great Help.

—It seems to the writer that the most simple and best way to take an inventory in the ordinary drug store is to use inventory sheets such as jobbing houses usually employ. The form of inventory books, however, is of secondary importance, and the same books or the same methods would not be the best for every business. If all goods are properly marked with the cost, it facilitates the task greatly, because it often takes ten or fifteen times as long to find out the cost on some items as it does to note the amount you have on hand.

Personals

W. L. Pattiani, for the last seventeen years manager of the city department of the Langley & Michaels Company of this city, is about to retire from the drug business. Mr. Pattiani commenced his business career with Chas. Langley & Co. in 1878. He worked up through every department, until he was at the head. During all of these years Mr. Pattiani has ingratiated himself into the kindly feelings of a large number of business men, including the leading pharmacists of the Pacific Coast. He will be greatly missed by many when they visit the old firm, and especially by those city pharmacists who naturally went to him in their dealings with the firm.

Mr. Pattiani is going to live near St. Helena, where he has purchased a vineyard and extensive winery, and will engage in the manufacture of wines on a considerable scale. This will be to him, doubtless, an ideal life. For many years, as the business of the firm of Langley & Michaels Co. has grown, the strain upon him has been constantly increasing, so that he now feels the necessity of seeking a less strenuous life, and we wish him, and we feel sure that many others unite with us in this sentiment, many years of happy, prosperous life.

One of the popular business houses of Marysville is the Englund drug store. This place has been established many years and is firm in the confidence of the people.

The Ekman-Stow olive oil mill of Oroville has begun the manufacture of oil.

Articles of incorporation have been filed by the Charles H. Ward Drug Company of Pasadena and Los Angeles. C. H. Ward, C. L. Parsons, A. L. Hawkins are the three directors and principal owners of the new concern, which is capitalized at \$25,000, with \$20,000 subscribed.

William Aroman of Seattle, Wash., is in the city of St. Maries, Idaho, with a view to locating a turpentine distillery there. If he decides to erect the plant it will be on an extensive scale, employing eight or nine hundred men.

The first inspection of Tacoma drug stores and manufactories under the Pure Food Act has been completed by Deputy State Drug Inspector George D. Prigmore. There are thirty-eight drug stores and manufactories of medicines in Tacoma

which come under the inspection and, according to Mr. Prigmore, the manufacturers are all observing the law, while the retailers have not generally been complying with it, pending an explanation of the requirements.

Smith W. Miller, who recently bought out the Christmas Lake borax king, W. T. Smith, is making preparations to put up a refinery at Gold Hill, Ore. It is expected to have the plant in operation before the water covers the land in the spring.

The Ewartsville Grange at Pullman, Wash., has taken the first steps toward the establishment of a denatured alcohol distillery. Denatured alcohol lamps have been installed in the grange hall and are giving satisfaction.

The American Borax Company has struck a new borax mine near Land Station, Cal., on the Southern Pacific Railroad. Explorations are being conducted by Henry Blumenberger, manager of the Western Borax Company's works at Daggett, Cal.

Dr. Frederick D. Webley has removed from Santa Rosa to Santa Cruz.

During the past few years the Stockton Drug Company has come rapidly to the front as one of the leading pharmacies of Stockton. The location, at the corner of Sutter and Main Streets, on the most prominent corner of town, is accessible by all car lines. Since the first establishment of a drug store on this corner the business has prospered, and now, under the new proprietors, it is larger than ever before.

The new one-story brick building being erected by John Gall at the corner of Main and Center Streets, Turlock, is nearing completion, and will be ready for occupancy soon.

Mr. Geo. C. Sharp of Elsinore has sold his drug store to Messrs. Boyd & Lytle of San Diego.

The host of friends and business acquaintances of Dr. L. E. Nowers, the well-known proprietor of Nowers' drug store on G Avenue, will feel even more grief than surprise that his store is closed this morning and that he has decided to go out of the drug business in Douglas, Arizona.

A deal which has been pending for some time, but which has just been announced is the sale by A. Skinkle, Jr., of his interest

in the Hardman drug store, Riverside, to Dr. J. H. Hudson. Mr. Skinkle, who has had a controlling interest in the business since last February, will go to San Francisco to engage in business.

Lynn Boyd and B. C. Lyttle of San Diego have sold their drug business in that city and have gone to Elsinore to reside.

The Empire drug store of Spokane has been sold to William Spring of Ritzville at administrator sale for \$1,000.

H. L. Fulton has resigned his clerkship in the Sun drug store of Riverside and will soon establish a new drug store at Brawley, in the Imperial Valley.

Dr. M. C. Billings of San Bernardino has secured the services of W. Stivers, a druggist of large experience, formerly of Kansas, late of Los Angeles. Mr. Stivers has arrived and his family will come later.

So far this season the American olive Company has shipped ten cars of olives from Oroville and Palermo.

A big oxygen tank exploded at the German drug store, which is situated in the central part of the City of Mexico, causing considerable alarm and no little damage. The clerk who was preparing the oxygen had a very narrow escape, as the explosion occurred just when he had gone into an adjoining room to bring some substances.

J. L. Myers' new drug store, South Bend, Wash., is rapidly nearing completion and will soon be ready for the stock.

Frank Carter, the son of Mel Carter, and a Modesto raised boy, is making arrangements for the opening of a drug store in one of the stores in the Johnson building on I Street, about the first of the year.

The Hahman Drug Company, Santa Rosa, has moved from its temporary quarters on Mendocino Avenue to the new Paul Hahman Building, on Exchange Avenue.

Unusual interest is being shown by the Compton people on account of the fine new drug store that is replacing the old one. P. W. Barritt, who is managing the improvement, is a pharmacist and manufacturing chemist of high esteem from Los Angeles.

T. K. Mehrtens, who for the past year has been identified with Malone's San Rafael Pharmacy, has severed his connection with the concern and will hereafter have charge of one of the branch stores of the Maritime Drug Company of San Francisco.

W. M. Poley, the druggist, is busily engaged in removing stock and fixtures to

the Farlow-Rhodes Block, Ashland, Ore., facing the Plaza, where he will have commodious quarters, 20 feet in width by 85 feet in depth, affording ample space for display of goods.

C. J. House of Everett, Wash., sold his drug store to E. A. Roberts of Monroe.

Few cities the size of Santa Rosa are blessed with the high-grade drug stores to be found there. One of the old standbys is the St. Rose, and there can be found everything required in the drug or medical line.

Messrs. Boyd and Lyttle, the San Diego druggists who have purchased the Sharp drug business, have purchased 30 feet of frontage on Main Street of W. F. Porteous.

The names of J. F. Childs, F. M. McCallum, C. H. Rauen, Henry Bicknell and F. O. Boyer appear on the articles of association as incorporators of the Honolulu Drug Company, Limited, filed with the Treasurer of the Territory.

Messrs. A. J. Neve and J. N. Kirkland, who recently purchased the drug store of Louis Roeder in the Pacific Electric Building, 606 South Main Street, Los Angeles, will reopen the store under the firm name of the American Drug Company.

R. C. Ramage has a very neat drug store at the corner of Pasadena Avenue and Avenue 39, Los Angeles. His place is becoming popular in all the surrounding neighborhood, though it has been open but a few weeks.

Brunswig Drug Company's buildings in Los Angeles cover over an acre of ground at the corner of North Main Street, running through to Republic, thence to New High Street, with a frontage of half a square on New High Street. A branch house at San Diego looks after that end of the trade.

Merrill A. Washburn of Sacramento, for many years a well-known druggist, passed away at his home after an illness of over a year.

Frank J. Quirin, proprietor of a local pharmacy, has returned to Sacramento from Victorville, 110 miles from Los Angeles, where he has for the past few weeks been prosecuting an unsuccessful search for his brother, A. P. Quirin, who disappeared from his ranch near Victorville and is believed to have wandered out upon the desert and died from starvation.

The Lang Drug Company, whose store is at No. 31 Washington Avenue, is the oldest drug firm, if not the oldest firm of any kind in Richmond.

Dr. J. B. Sands, who established the Venice Drug Company of Los Angeles, and who was one of the first medical practitioners to locate in the Ocean Park district, has been elected by the City Trustees to the vacancy caused on the board through the death recently of A. Ed Robinson.

Charles B. Whilden, Secretary of the State Board of Pharmacy, and **Dr. G. D. Pratt**, a deputy of the same, have made out numerous complaints charging California druggists with violation of the poison law and the pharmacy law.

Fernand Javal of Paris, son of the proprietor of Houbijant's, one of the largest perfumery establishments in the world, came to Los Angeles to investigate the possibilities of this section with a view to opening a branch of the Parisian business.

The Redwood City **Democrat** recently issued an illustrated edition of their paper, showing many of the principal business houses, factories and residences of that progressive city. The store of **A. D. Walsh** and **P. A. Ryan** and the beautiful home of the former occupy prominent places among the illustrations. We are pleased to note that Mr. Walsh is President of the Board of Trade, a position accorded to him on account of his many years of honorable business dealings in that community and of his public-spirited and progressive character.

W. H. Groat, the popular representative on this Coast of Lehn and Fink, dropped in at our office the other day. He reports business good, and says San Francisco is all right.

Fairchild Bros. and Foster gave a Christmas party to their employees on Christmas eve. A programme of twelve numbers followed the dinner and must have been very enjoyable, as it embraced a variety of talent, vocal, instrumental, histrionic, terpsichorean and elocutionary.

Barrington's Pharmacy, San Jose, had a narrow escape from fire a few days ago. The clerks, after making 10 pounds of red fire, were testing it, when a spark was communicated to the mess and an explosion ensued. The clerks, Messrs. **Jas. Mulcarrie** and **Harry Thompson**, were badly shaken up and burned about the hands and face, but are now on duty again.

For the past three weeks members of the State Board of Pharmacy have been working in San Jose and vicinity. They succeeded in making five convictions of unlawful selling of poisons, and instructed the

district attorney to insert the following notice in the San Jose papers:

Warning

To Druggists and Others

Your attention is directed to the penal provisions of the act regarding the sale of poisons (including strychnine) and of the act Regulating the Practice of Pharmacy, and especially Section one (1) of the latter, forbidding the use of assistants other than registered assistant pharmacists. All violations of said laws will be rigorously prosecuted.

JAMES H. CABPBELL,
District Attorney.

The grocery stores were not overlooked in the crusade, and those selling poisons and drugs were notified to stop doing the same or be prosecuted.

The **Morehead Fleming Drug Co.** have opened a well-equipped branch pharmacy at the corner of San Carlos and San Fernando Streets, San Jose.

The Wm. S. Merrell Chemical Co.

We are pleased to state that this old established firm is still carrying on its business as usual, notwithstanding the financial stringency that has so seriously hampered many manufacturing firms. Their large force of traveling men are at work, and the entire business of the concern is going on with the usual vigor.

We regret to note that their depot on Van Ness Avenue in this city was recently destroyed by a fire which originated in a neighboring store.

California Pharmaceutical Association, May 19, 1908. Where shall it be—Los Angeles, San Diego, San José, Fresno, Stockton, Sacramento, Santa Cruz or Del Monte?

Pacific Coast Pharmaceutical Association, when and where?

American Pharmaceutical Association, Hot Springs, Ark., Sept. 7, 1908.

Waterproof Ink

An ink suitable for inscriptions on stone, tombs, or other places where dampness may attack is made as follows: Pitch, 11 lb.; lampblack, 1 lb.; turpentine sufficient to make soluble. Mix with heat.—Contributed by **Frank Pavlik, Jr.**, Winnetka, Ill., in **Popular Mechanics**.

Drug News

The California Drug Clerks' Union sent out quaint invitations to their friends in the shape of a subpoena to appear on New Year's day at Hamilton Square Hall, between 10 a. m. and 12 p. m., as a witness in an action against A. Gobbler Turkey, et al., and each witness was further commanded to bring with him one appetite, and one thirst, and one ear for music.

In due time the court assembled, and the case of A. Gobbler Turkey was discussed. It is needless to say that it went against him; in fact, when the suit was over he did not have a leg to stand upon, and was literally thrown out of court. There was great rejoicing over his discomfiture, and the prosecuting witnesses continued their jubilations until the wee sma' hours.

Belladonna Culture in California

The field cultural operations in the belladonna fields of Johnson and Johnson in Castro Valley, near Hayward, California, are now in full swing. By the middle of February, 1908, thirty-two acres will have been planted. Some of the seed is planted directly into the field, some in cold beds to be transplanted when the seedlings are sufficiently large. Thus far the season has been quite favorable for the field operations.

There is pending a law before the Pasadena City Council to prevent the distribution of patent medicines and samples, and another to fix the license for street shows by patent medicine fakers at \$200 per day. Some of the Council are in favor of absolutely prohibiting public shows for the peddling of nostrums.

Before we are brilliant let us be plain.

The following incident happened in a High School in California:

Teacher (to second year history class)—Why is the city of Pisa still renowned throughout the world?

Student—Because of the celebrated cough cure made there.

Some time ago a man came into the drug store and asked for a bottle of Ayer's Hair Vigor.

"If my hair don't begin to come in with this bottle, I'll not take another dose of this stuff," he said. "I have taken four bottles and my hair has not come in at all."

"But you don't swallow it, you rub it on your head," he was told.

"Why," replied the man, "I thought you took it internally, it has an awful taste."

The Business Side of Pharmacy

A course of lectures on this topic will be delivered shortly to the senior class of the California College of Pharmacy in the lecture hall at the Affiliated Colleges. The first, on "Pharmacy as a Profession, and as a Business," will be by Professor W. M. Searby on Tuesday, January 14, to be followed by two by Mr. Valentine Schmidt on "The Fitting Up of a Drug Store" and on the "Management of the Dispensing Department." Other lectures will follow, discoursing on buying and selling goods, keeping stock, drug store bookkeeping, etc., by well-known pharmacists.

Chicago School of Sanitary Instruction

Articles of incorporation have been granted for a school bearing this name, with Health Commissioner W. A. Evans, Assistant Health Commissioner Reilly, and Dr. J. Biehn as founders.—South. Calif. Practitioner.

Boxes, Labels
Cartons, Etc.

Order by Mail Now

From

F. C. FELTER

228 Lumber Exchange Building

Portland, Oregon

Representing Pictorial Printing Co., Aurora and Chicago, Ill.

The six-story, fire-proof, brick establishment of the Clarke-Woodward Drug Company of Portland is a revelation in structures built for properly conducting a large wholesale drug business. No expense was spared in making it complete and equipping it with every facility. From the big, roomy basement to the top floor, with its stores of heavy chemicals, it is evident that not only is the structure built for business, but that it's strictly business that is being transacted within it.

Efforts of Western stockmen to have established at some central point in the range States a field pathological station for the study of outbreaks of disease among sheep, cattle, hogs and horses, are being seconded by the Oregon Woolgrowers' Association. Resolutions indorsing the movement have been adopted by the organization and the secretary has been instructed to urge upon the Secretary of Agriculture the necessity for the establishment of this field bureau at once.

Portland may have a laboratory, a chemist and a bacteriologist, to work in conjunction with the market inspector and health officers, with an appropriation of probably \$5,000 for the operation of the department and salaries of the attaches. That a recommendation to this effect will be made by the Ways and Means Committee of the City Council is regarded as certain. In fact, some of the members at yesterday's meeting declared them an absolute necessity, if the food supply of the city is to be kept anywhere near the required standards of purity.

Larkspur Poisons Cattle

According to the Rocky Mountain Druggist, a vast tract of grazing land northwest of Gunnison, Colo., has been so overgrown with larkspur that cattle feeding upon it are dying in great numbers. The State veterinarian has advised the removal of the cattle to other fields until the plant ceases flowering. The report does not specify the name of the plant, but it probably is *Delphinium consolida*, commonly called field larkspur.

Altassyrisch

By Scheffel

Translated by Dr. W. C. Alpers

In the Black Whale Tavern at Askalon
A prophet sat, and drank
For three long days, till stiff as a board
On the marble floor he sank.

In the Black Whale Tavern at Askalon
The landlord growled: "I say,
Of wine and beer that fellow drinks
Much more than he can pay."

In the Black Whale Tavern at Askalon
The waiters said: "We will
Present him on six massive bricks
In cuniscript his bill."

In the Black Whale Tavern at Askalon
The prophet laughed: "I spent
In the Druggists' Club at Nineveh
My very last red cent."

In the Black Whale Tavern at Askalon
Just when the clock struck four,
The fisty porter, of Nubia fired
The stranger through the door.

In the Black Whale Tavern at Askalon
A prophet has no show,
And if you're in for a jolly time,
Pay cash, or quit and go.

—Apotheker-Zeitung.

Alfred Holzman Co. of Chicago have got out some attractive Valentine and Easter cards. These cards consist of ten Valentine cards and ten Easter cards and are called "Sunbonnet" Series. The designs are entirely different from subjects that have so far been used for illustrating the Valentine and Easter holidays. The cards represent a cute little sunbonnet baby playing with hearts, chickens and rabbits, and cleverly illustrating the symbols of these two holidays. (See advertisement.)

To Restore Color to Aluminum

To restore gray or unsightly aluminum to its white color, wash with a solution of 30 parts borax in 1,000 parts water, with a few drops of ammonia added.—Popular Mechanics.

Emulsient is the new name for "emulsifier" or "emulsifying agent." It is an improvement. Let the fittest survive.

Famine in Drug Clerks

Although salaries have practically doubled in the last two years, there is a great scarcity of drug clerks in New York today. Many pharmacists are hard put to find assistants, and there seems to be little prospect of a renewal of the former supply. The scarcity is largely accounted for by the strict provisions of the new law which requires graduation from a college of pharmacy as well as four years' actual experience as an assistant before a man is entitled to a certificate as a pharmacist.

Mallinckrodt's Pure Ether for Anæsthesia at Lower Prices

Government regulations now permit the manufacture of ether from alcohol on which no internal tax is levied. The Mallinckrodt Chemical Works, therefore, announce that they are offering their pure ether for anæsthesia, as well as other ether preparations, at much lower prices than heretofore prevailed. The ether sold by the Mallinckrodt Chemical Works for surgical inhalation is marketed under the caption "Ether for Anæsthesia." This ether they manufacture from the purest grain alcohol, under the supervision of skilled and experienced chemists, and it is especially tested and selected to meet the requirements of surgeons for an ether of the highest attainable purity and uniformity. It contains even a greater percentage of pure ether (ethyl oxid) than the Pharmacopœia requires, and is a superior article in every particular. It is advisable for pharmacists and physicians when ordering ether to specify "**M. C. W.**" **Ether for Anæsthesia** in order to prevent any confusion with the other grades they supply. The Mallinckrodt ether for anæsthesia is put up under a white label with the words "For Anæsthesia" printed in red, while all of their other grades are sold under a blue label.

Cut It Out

Have you had a day's hard work?
Do you feel down in the dumps?
Do you wish that you could shirk
Life with its hard knocks and bumps?
Is there no bright end in view?
Do you feel that you must doubt
Man's ability to do
Any good? Well, cut it out!

—Exchange.

The State Pure Food and Drugs law has gone into effect. Professor Meyer E. Jaffa, professor of nutrition of the University of California, was officially appointed as director of the State Food and Drugs laboratory.

While the appointment of Professor Jaffa was made last July, it could not be legally ratified until the law went into operation on the first of the year. Professor Jaffa will receive a salary of \$3,000 a year as director, but will not relinquish his instruction work in nutrition at the university. He will not, however, receive a salary from the university, but will retain his title and be a member of the faculty, with full privileges.

According to the vote of the board of health the University of California has been named as the place where the laboratory work in connection with the carrying out of the new law will be done. A staff of university students will be the assistants, and thus the work of the newly created department will be removed from all political influences. The staff of assistants will be announced in a few days.

Reincorporation

We desire to inform our friends, and the public generally, that we have reincorporated under the name of "The Cutter Laboratory"—having dropped the word Analytic out of the name. There is no change whatever either in the membership or management. We have increased our capital stock and enlarged our facilities and are better prepared than ever to produce the purest and best biologics on the market, and give prompt and faithful attention to all orders. We wish to thank our friends for having made these changes necessary and possible, and to assure them that their loyal support and patronage is greatly appreciated.

We are at your service and trust you will command us freely. Respectfully,

THE CUTTER LABORATORY,
Successor to The Cutter Analytic
Laboratory.

The City Council of Ameca, Mexico, has addressed a communication to the State government asking that the sale of patent medicines be forbidden, especially in commercial houses other than drug stores.

In addition to our full line of
**Pharmaceuticals and Pharmaceutical
 Specialties**

We have the finest and most complete line of

Buyer's Label Goods

And any Druggist who desires to put his push and energy
 back of *his own* specialties, and who wants in every
 package, conscience-quality, and on every label
 that taste and neatness that half sell
 the goods, should write for
 labels and prices to

HENRY K. WAMPOLE & COMPANY

(INCORPORATED)

Manufacturing Pharmacists
 PHILADELPHIA, U. S. A.

—FOUNDED 1818—

POWERS-WEIGHTMAN-ROSENGARTEN CO.

Manufacturing Chemists

NEW YORK

PHILADELPHIA

ST. LOUIS



OUR SERIAL GUARANTY No. 15

Morphine Sulphate, Flakes or Cubes
 Quinine Sulphate and Other Salts
 Codeine. Cocaine. Strychnine
 Acid Tannic. Iodoform. Thymol Iodide
 Sodium Salicylate. Iodine Resublimed
 Mercurials. Santonin. Salicin. Salol
 Ether. Collodion. Chloroform

Bismuth Subnitrate, Bulky, Tasteless
 Sodium Phosphate, Pure, Granular
 In Bottles, Cans or Cartons
 Gold and Platinum Chlorides
 Silver Nitrate and Other Salts
 C. P. Acids—Sulphuric, Hydrochloric
 Nitric and Acetic

POTASSIUM IODIDE, CRYST. OR GRANULAR

COMPLETE LIST ON APPLICATION

SPECIFY P-W-R ON YOUR ORDERS

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

THE MARKET

Retrospect and Prospect

While the business world has passed through trade conditions bordering closely upon what may be termed somewhat trying, from all indications the drug trade enjoys the happy distinction of being a line which has, by comparison, felt the effects of the financial depression of the past months in a minimum degree, and it may be stated that the year just closed can be summed up in its total as a prosperous one.

The year was ushered in with a condition of remarkable prosperity, the confidence of the people being so strong that there was little hesitancy in incurring unusual obligations. Not many months had passed, however, ere the pace began to slacken in some directions, and there began a general drawing in of the "horns" by many large producers and distributors, with a consequent curtailment of production, and it would have been far wiser if this spirit of conservatism had materialized at an earlier date. Without confidence there is no credit; with credit gone, the inevitable result—a money panic.

The advent of the new year reveals a much improved state of feeling, and it is predicted by representatives of the drug trade for the year upon which we have entered, while no boom may be expected, that as the purse-strings of the money market are loosened up, conditions throughout the country will improve and the end of the twelfth month will show a satisfactory volume of trade for the year.

It is prophesied that the matter of profits will be looked into more closely than before, and in the end business will be conducted on a safer and more lucrative plan.

On account of dullness of trade during the holiday season, price changes since our last issue are not of a startling nature. An agreeable feature to the retailer is the smallness of the "advance" column. As the sowing time approaches with unanticipated large stocks on hand, the price of opium keeps on the down grade. While higher figures are obtainable at the bark sales, it has had apparently little influence on the market price of quinine, which remains normal. Citric acid has taken another drop, owing to an easier tendency of the raw material, coupled with a keen competition from foreign sources. Higher rates for the imported castile soaps may be expected, some of the leading manufacturers having issued advanced schedules; arnica flowers are still held higher, with only moderate supply available. Glycerin is not so firm, a falling

demand upon the manufacturers, owing to the cancellation of some orders and postponement of delivery on contracts, having occasioned this. Balsam copaiba remains steady, the supply appearing to keep pace with the demand. Balsam Peru varies considerably as to quality. Manna appears still in only moderate supply, with consequent appreciated values. The essential oil market presents no features of interest, nor does camphor, prices ruling about as previously quoted. Golden seal remains at top notch, supplies of satisfactory grades being light. Dandelion is easier, senega slightly higher. Quince seed jumped to a higher figure than for many years, owing to low supplies. Silver nitrate, on account of lower bullion rate, dropped about 15 cents. The principal changes are tabulated below:

Advanced.

Belladonna leaves
Coca leaves
Oil rose
Quince seed
Turpentine

Declined.

Arnica flowers
Bluestone
Bromides
Golden seal
Guarana
Morphia
Oil anise
Oil cubebs
Opium
Santonin
Sarsaparilla, Mexican

ACETANILID. N. Y. Q., 1-lb. cart. incl..lb	38
Powdr., N. Y. Q., 1-lb. cart. incl.....lb	38
ACETONE. Technical.....lb	45
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....lb	20
5-lb bottles, ".....lb	15
Glacial, M. C. W. lb	44
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure.....lb	14
Arsenous, Lumps, Pure lb	8
Arsenous, Powd., Pure, M. C. W. lb	8
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	57
Benzoic, from Toluol, M. C. W.....oz	13
Benzoic, True from Benzoin.....lb	35-1 50
Benzoic, from Tolvol, 1-oz cartons.....oz	13
Benzoic, from Tolvol, M. C. W.....lb	55-65
Boracic lb	16-18
Boracic, powd., M. C. W.....lb	19
Boracic, im. powd., M.C.W., 1-lb cart. incl.lb	27
Boracic, Squibb's, 1-lb bottle.....lb	45
Boric, H. P. lb	28
Boric, powd., pure lb	20
Boric, Impalp., powd. lb	28
Butyric, 100% oz	29
Butyric, H. P. lb	2 14
Cacodylic, 1/8 oz	4 00
Camphoric oz	40

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Carbolic, Calvert's No. 1.....lb	2 00	Valerianic oz	20
Carbolic, Calvert's No. 2.....lb	1 50	ACONITINE. Amorphous dr	1 40
Carbolic, 1-lb tin, M.C.W., gilt label.....lb	28	Cryst. dr	1 40
Carbolic, M.C.W., 5-lb can, gilt label.....lb	25	ADAPES LANAE. B. P. lb	35
Carbolic, M.C.W., 10-lb can, gilt label.....lb	24	AGARIC. White. lb	45
Carbolic, M.C.W., 25-lb can, gilt label.....lb	22	ALBOLINE. lb	50
Carbolic, Loose, crys. lb	70	5-lbs lb	45
Carbolic, Solution, 1-lb. bot.....doz	2 50	Liquid lb	50
Carbolic, Crude gal	40-50	Liquid, 5-lbs lb	45
Chromic, 1-oz vials oz	15	AGURIN oz	1 70
Chrysophanic, true, M. C. W., 1-oz vials.....oz	39	ALBUMEN. Egg. lb	1 45
Cinnamic, P. W. R.....oz	39	ALCOHOL. Absolute. qt	1 00
Citric, crys. lb	57-60	94%, 10-gal, case gal	2 93
Gallic, 1-oz cartons oz	11	94%, 5-gal. case gal	2 98
Gallic lb	70	Denatured, 5-gal. can.....gal	70
Hydrobromic, conc., 1-oz vials, M.C.W.....oz	15	Wood, 5-gal. case. gal	75
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34	Wood, Columbian Spirits, 5 gal. in case.gal	1 02
Hydrocyanic, 1-oz vials, U.S.P., M.C.W.....oz	10	Wood, Columbian Spirits, barrels.....gal	85
Hydriodic (Sp. gr. 1.50).....oz	42	Wood, Columbian Spirits, ½ barrels....gal	95
Hydriodic (Sp. gr. 1.70).....oz	52	Cologne Spirits, 5 cents advance over price of	
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39	Alcohol.	
Hydrocyanic, U. S. P., Scheele's.....oz	35	ALDEHYDE. Conct. oz	25
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30	ALLSPICE. lb	17
Hydrofluoric, ½s, g. p. bots. incl. " ..lb	1 80	Powdered lb	20
Hydrofluoric, ¼s, g. p. bots. incl. " ..lb	2 25	ALMOND MEAL. lb	45
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37	ALMONDS. Bitter, shelled. lb	45
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24	Sweet, shelled. lb	45
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19	ALON. 1-oz vials oz	16
Lactic, conc., 1-oz vials, M. C. W.....oz	12	ALUM. Ammonio-Ferric, M. C. W. lb	34
Lactic, conc., 1s lb	79	Chrome lb	21
Lactic, dilute, 1-oz vials, M. C. W.....oz	8	Burnt lb	15
Muriatic, carboys lb	3¼	Ground lb	7-9
Muriatic, 6-lb bots.....each	75	Lump. lb	5-8
Muriatic, C. P., 6-lb bots.....lb	22	Powdered. lb	7-9
Muriatic, C. P., 1-lb bots.....lb	38	ALUMINUM. Aceto-Tartrate, M. C. W...oz	20
Nitric, carboys. lb	8	Bromide, M. C. W.....oz	29
Nitric, 7-lb bots.....ea	1 10	Chloride, M. C. W.....lb	79
Nitric, C. P., 7-lb bots.....lb	22	Chloride, M. C. W.....oz	14
Nitric, 1-lb bots. lb	40	Hydrated, pure, M. C. W.....lb	79
Nitro-Muriatic lb	40	Metallic, M. C. W.....oz	17
Nitrous, fuming lb	65	Sulphate, pure, M. C. W.....lb	25-29
Oxalic. lb	14-16	ALUMNOL oz	60
Oxalic, chem. pure, M. C. W.....lb	30	AMIDOL. 1-oz. can oz	65
Phosphoric, glacial lb	64	AMMONIA. Spirits of lb	75
Phosphoric, syrupy (85%) lb	55	Spirits of, aromatic lb	75
Phosphoric, diluted, M. C. W.....lb	25	Aqua, 26 deg., 1-lb. bot.....lb	20
Phosphoric, M. C. W., U. S. P., 50%..lb	40	Aqua, 26 deg., 4-lb bot.....lb	16
Phosphoric, glacial, 1-oz vials.....oz	11	Aqua, 26 deg., 5 gal. can.....lb	11
Phosphoric, glacial, 1s, M. C. W.....lb	64	Aqua, 26 deg., carboy.....lb	9½
Picric lb	60-70	Aqua, Washing, 5-gal. can.....gal	50
Pyrogallic, Resublimated, M. C. W.....oz	27	AMMONIUM. Acetate, cryst., M. C. W...oz	14
Pyrogallic, 1-lb cans, W. C. W.....lb	2 35	Arsenate, 1-oz vials, M. C. W.....oz	22
Pyrogallic, ½-lb cans, M. C. W.....lb	2 45	Benzoate, 1-oz vials, M. C. W.....oz	14
Pyrogallic, ¼-lb cans, M. C. W.....lb	2 55	Benzoate, M. C. W. lb	1 14
Pyroligneous gal	40	Bichromate, 1-oz vials, M. C. W.....oz	14
Salicylic, 1-lb cartons lb	46	Bromide, 1-oz vials, M. C. W.....oz	10
Salicylic, from Oil Wintergreen.....oz	44	Bromide, M. C. W.....lb	34
Salicylic, Amorph. lb	46	Carbonate. lb	15-18
Succinic, oz bottles oz	74	Carbonate, powdered lb	20
Sulphuric, Aromatic lb	75	Chloride, see "Muriate."	
Sulphuric, carboys lb	2-2¼	Citrate, 1-oz. vials, M. C. W.....oz	15
Sulphuric, 9-lb bottles each	1 00	Hypophosphite, 1-oz vials, M. C. W.....oz	21
Sulphuric, C. P., 9-lb. bottles.....lb	22	Hypophosphite, M. C. W. lb	1 70
Sulphuric, C. P., 1-lb bottles.....lb	38	Iodide, 1-oz. vials, M. C. W.....oz	38
Sulphurous, U. S. P., solution.....lb	25	Muriate, lump. lb	14-16
Tannic, U. S. P., M. C. W.....lb	85-90	Muriate, gran. lb	10-12
Tannic, P. W. R.....lb	1 15	Muriate, gran., pure, 1-lb cartons.....lb	20
Tartaric, crystallized lb	39-45	Muriate, powdered, pure.....lb	19
Tartaric, powdered lb	39-45	Muriate, Po lb	17
Tri-chlor-acetic oz	32		

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Muriate, Po., Squibb's	lb	35	Copaiba, solidified	lb	1 25
Nitrate	lb	44	Fir, Canada	lb	75-80
Oxalate	lb	52	Fir, Oregon.	lb	50-55
Phosphate	lb	84	Gurgun	lb	40
Salicylate	lb	1 10	Peru	lb	3 25
Salicylate	oz	13	Sulphur	lb	60
Succinate	oz	1 00	Tolu	lb	65
Sulphate, com'l	lb	12	BARIUM. Acetate, 1-oz vials, M. C. W....	oz	16
Sulphate, C. P.	oz	29	Carbonate, M. C. W.....	lb	37
Sulpho Cyanate, pure	oz	10	Carbonate, precip.	lb	30
Valerianate, cryst., 1-oz vials.....	oz	24	Chloride, chemically pure, M. C. W.....	lb	33
Valerianate, cryst.	lb	1 75	Nitrate, M. C. W.	lb	23
AMMONOL	oz	1 05	Sulphide, commercial, M. C. W.....	lb	43
AMYL. Acetate	lb	79	Sulphide, pure, M. C. W.....	lb	53
Butyrate, M. C. W.	oz	30	Sulphate, M. C. W.	lb	13
Nitrite	oz	29	BARK. Alder, black, pressed, 1-lb.....	lb	25
Valerianate, M. C. W.	lb	2 59	Alder, red or tag, pressed, 1-lb.....	lb	24
ANNATTO. Roll	lb	60	Angostura	lb	30
ANODYNE. Hoffman's, 1-lb bottle.....	lb	75	Ash, black, pressed, 1-lb.....	lb	20
ANTHRASOL	oz	60	Ash, mountain, pressed, 1-lb.....	lb	24
ANTIFEBRIN	oz	17	Ash, white, pressed, 1-lb.....	lb	25
ANTI-KAMNIA and its combinations.....	oz	1 00	Barberry, pressed, 1-lb.....	lb	30
10-oz lots for \$9.25; 25-oz for \$22.80			Barberry, powdered	lb	35
Tablets, Vest Pocket	doz	1 75	Bayberry, pressed, 1-lb.	lb	25
Tablets, Vest Pocket, 1 gross, 5% off.			Bayberry, powdered.	lb	30
ANTIMONY. Black, powdered, pure.....	lb	15	Birch, pressed, 1-lb.....	lb	24
Black, powdered, commercial	lb	10	Black Haw, powdered	lb	35
Chloride, cryst., 1-oz vials.....	oz	22	Black Haw, pressed, 1-lb.....	lb	30
Chloride, sol. (Butter of)	lb	39	Black Willow, pressed, 1-lb.....	lb	25
Oxysulphuret (Kermes Mineral)	lb	1 00	Blackberry.	lb	20
Potassium Tartrate, M. C. W.....	lb	45	Buckthorn, pressed, 1-lb	lb	25
Sulphuret, precipitated	lb	92	Butternut, pressed, 1-lb	lb	25
ANTINOSINE	oz	2 10	Calisaya, yellow, commercial.	lb	30
ANTIPYRIN. Knorr's	oz	35	Calisaya, yellow, commercial, powd.....	lb	32
New	oz	25	Calisaya, East India.	lb	42
APIOL. Fluid Green	oz	37	Calisaya, powdered.	lb	45
APOLSYIN. S. & G.	oz	65	Canella	lb	30
APOMORPHINE. Hydrochlor. A m o r.,			Canella, powdered	lb	35
1/8-oz vial	oz	3 50	Cascara, Sagrada.	lb	18
Mur. cryst.	oz	8 50	Cascara, Sagrada, powdered.	lb	20
Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	oz	4 00	Cascarilla	lb	25
ARISTOL	oz	1 80	Cascarilla, powdered	lb	30
ARGOLS. Red	lb	15	Cassia.	lb	22
Red, powdered	lb	20	Cassia, powdered	lb	25
ARGYROL	oz	1 50	Cinchona, red.	lb	45-50
ARROWROOT. St. Vincent.....	lb	18-20	Cinchona, red powdered.	lb	45-50
Taylor's Bermuda, 1/4s and 1/2s.....	lb	35	Cinnamon, Ceylon.	lb	40 50
Taylor's Bermuda, bulk	lb	35	Cinnamon, Ceylon, powdered.	lb	40-50
ARSENIC. Bromide, 1-oz vials, M. C. W....	oz	27	Cotton Root, powdered.	lb	35
Chloride, sol., M. C. W.....	lb	30	Cotton Root, pressed, 1-lb.....	lb	35
Iodide, 1-oz vials, M. C. W.....	oz	44	Cramp, powdered	lb	25
Metallic	lb	45	Cramp, pressed, 1-lb	lb	25
Red, powdered	lb	15	Cundurango	lb	45
Solution (Donovan's)	lb	40	Cundurango, powdered	lb	50
Solution (Fowler's)	lb	30	Dogwood, pressed, 1-lb.....	lb	20
Sulphured, red powdered	lb	33	Dogwood, powdered	lb	25
Sulphured, yellow powdered	lb	33	Elder, pressed, 1-lb.....	lb	35
White, lump	lb	30	Elm, select, slabs.	lb	30
White, powdered, commercial.....	lb	18	Elm, ground, bulk	lb	30
Yellow (orpiment)	lb	35	Elm, powdered	lb	30
ASBESTOS. Fibrous, gro.....	lb	20	Elm, powdered, 1/4s.....	lb	30
ASPARAGIN. 1/8-oz vials	oz	1 50	Elm, powdered, 1/8s.....	lb	35
ASPIRIN	oz	43	Elm, powdered, ozs.....	lb	40
ATROPIA. Pure, 1/8-oz vials	oz	7 35	Hemlock, pressed, 1-lb.	lb	25
Sulphate, 1/8-oz vials	oz	6 25	Hemlock, powdered.	lb	30
BALSAM. Copaiba, 8-lb can.....	lb	90	Jamaica Dogwood, pressed, 1-lb.....	lb	35
Copaiba, 5-lb bottle.....	lb	95	Jamaica Dogwood, powdered, 1-lb.....	lb	35
Copaiba, 1-lb bottle.....	lb	1 05	Mezereon, pressed, 1-lb.....	lb	28
			Oak, red, pressed, 1-lb.....	lb	22
			Oak, white, powdered.	lb	22

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Oak, white, pressed, 1-lb.....lb	22	Powdered lb	75
Poplar, white, powdered, 1-lb.....lb	25	BLUE VITROL. Barrels, 7½ lb	10-14
Poplar, white, pressed, 1-lb lb	25	Powdered lb	18
Poplar, yellow, pressed, 1-lb.....lb	25	BOLE. Armenian lb	18
Prickly Ash, powdered lb	40	BONE ASH lb	6-8
Prickly Ash, pressed, 1-lb.....lb	33	BORAX. C. P., Squibb's lb	33
Quebracho lb	35	Pacific Coast Borax Co., 1-lb.....doz	1 14
Sassafras. lb	28	Pacific Coast Borax Co., ¾-lb.....doz	90
Sassafras, powdered lb	25	Pacific Coast Borax Co., ¼-lb.....doz	48
Simaruba lb	50	Powdered lb	8-10
Soap Tree lb	10-12	Pure Granular lb	25
Soap Tree, ground lb	15	Refined lb	8-10
Soap Tree, powdered. lb	15	BOROFORMOL. Pints doz	7 50
Sumac, pressed, 1-lb.....lb	25	BOROLYCEIDE Solution. lb	60
Tamarac, pressed, 1-lb lb	25	BROMOFORM oz	20
Wahoo Root, pressed, 1-lb.....lb	33	BROMINE lb	83
Wild Cherry. lb	16	Chloride, solution oz	60
Wild Cherry, ground. lb	18	BRUCINE. ⅛-oz vials, M. C. W.....oz	1 75
Wild Cherry, powdered lb	20	BRUCINE oz	1 75
BAY RUM. Domestic gal	2 25	Phosphate oz	1 75
Imported gal	3 00	Sulphate, ⅛-oz vials oz	1 75
BEANS. Calabar. lb	40	BUDS. Balm of Gilead lb	60
Tonka, Angostura lb	1 35	Cassia lb	50
Vanilla, short, true Mexican.....lb	8 50	BUTTER CACAO. Ghirardelli lb	70
Vanilla, long, true Mexican.....lb	9 50	German lb	72
Vanilla, Tahiti lb	1 50	CADMIUM. Bromide, M. C. W.....oz	20
BEBEERINE. Pure, 1-oz vials oz	2 04	Iodide, M. C. W., 1-oz vials.....oz	33
Sulphate, 1-oz vials oz	1 49	Sulphate, M. C. W., 1-oz vials.....oz	25
BENZOLE. Pure lb	35	CAFFEIN. Bromide, 1-oz vials.....oz	37
BENZIN. Gallon 30		Citrated, M. C. W.....oz	28
5 and 10 gallons gal	25	Citrated, N. Y. Q.....oz	28
Pints doz	1 60	Pure, N. Y. Q.....oz	35
BERBERINE. Hydrochloride oz	2 55	Sulphate, ⅛-oz vials, M. C. W.....oz	60
Sulphate oz	2 29	Salicylate, true salt, ⅛s, M. C. W.....oz	60
BERRIES. Buckthorn lb	30	CALAMINE lb	18
Cocculus Indicus lb	17	CALCIUM. Bromide, 1-oz vials, M. C. W.....oz	12
Cubeb, stemless lb	30	Bromide, M. C. W.....lb	64
Cubeb, powdered lb	30	Chloride, fused, M. C. W.....lb	64
Elder lb	30	Chloride, granular, M. C. W.....lb	30
Juniper, Italian lb	10	Glycerolphosphate oz	22
Poke lb	25	Hypophosphite, 1-oz vials. oz	14
Prickly Ash. lb	40	Hypophosphite. lb	89
Sumac lb	25	Hypophosphite and Sodium, 1-oz vials....oz	16
Sumac, powdered lb	30	Hypophosphite and Sodium, M. C. W..lb	1 09
BETOL lb	60	Iodide, 1-oz vials, M. C. W.....oz	37
BISMUTH. Acetate, M. C. W.....oz	36	Lactophosphate, soluble lb	1 35
Citrate, M. C. W.....lb	2 89	Lactophosphate, soluble oz	17
Citrate, M. C. W.....oz	26	Phosphate, precipitated, 1-lb cart.....lb	20
Citrate and Ammonia, M. C. W.....oz	26	Phosphide, 1-oz vials oz	50
Citrate and Ammonia, M. C. W.....lb	2 82	Sulphate, pure lb	49
Lactate oz	44	Sulphide, 1-oz vials oz	10
Metallic lb	2 50	Sulphide lb	37
Nitrate, M. C. W.....oz	24	Sulphite lb	84
Oxide, Hydrated, M. C. W.....lb	3 68	Sulpho, carbolate, M. C. W.....oz	11
Oxide Hydrated, M. C. W.....oz	34	CALOMEL. N. Y. Q.....lb	1 05
Oxychloride, M. C. W.....lb	2 73	Calomel, P. W. R., 1-lb boxes.....lb	1 05
Salicylate, 40% oz	23	English, Howard's lb	1 35
Salicylate, 64% Basic oz	25	CAMPHOR. Monobromated, M. C. W.....oz	25
Salicylate, 64%, M. C. W.....lb	2 65	Tar flake. lb	5-7
Subbenzoate oz	32	Tar balls. lb	5-7
Subcarbonate lb	2 67	CANDY. Coltsfoot Rock lb	30
Subgallate oz	25	Horehound. lb	12
Subiodide, M. C. W.....lb	5 09	Rock, on strings lb	15
Subiodide, 1-oz vials, M. C. W.....oz	39	Rock, brown lb	16
Subnitrate, M. C. W.....lb	2 37	Rock, red lb	15
Subnitrate, N. Y. Q.....lb	2 37	Rock, white lb	14
Subnitrate, P. W. R. lb	2 37	CANTHARIDES. Russian, powdered.....lb	1 25
Tannic, 1-oz vials, M. C. W.....oz	27	CAPSICUM. African, pods lb	25
Valerianate, ⅛s oz	62	African, powdered lb	30
BLUE MASS lb	65	Bombay lb	20

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CARAMEL gal, \$1.25. lb	30	Hydrochloride, 1-oz vials, P. W. R. oz	2 65
CARBON. Bisulphide lb	30	COCHINEAL. Honduras lb	60
Bisulphide, 50-lb cans ea	5 18	Honduras, powdered. lb	65
Bisulphide, Wheeler's 50-lb can.....ea	5 18	CODEINE. N. Y. Q., pure.....oz	4 95
Bisulphide, 1-gal cans gal	1 43	Muriate, N. Y. Q. 1 oz, \$4 70..... $\frac{1}{8}$ s	4 90
Bisulphide, quart bottles doz	4 50	Phosphate, N. Y. Q., $\frac{1}{8}$ -oz vials.....oz	4 65
CARMINE. No. 40. oz	40	Pure, M. C. W. oz	4 95
No. 40. lb	4 50	Sulphate, M. C. W. oz	4 70
CASSIA FISTULA lb	20	Sulphate, 1-oz vials, P. W. R. oz	4 70
CASTOR FIBER. oz	1 50	COLLODION lb	70
Castor Fiber, powdered oz	1 75	1-oz vials doz	1 25
CERATE. Cantharides lb	1 00	Cantharidal lb	1 85
Goulard's, U. S. P. lb	70	Cantharidal, 1-oz vials doz	1 75
Resin, U. S. P. lb	50	Flexible lb	70
Savin lb	60	Flexible, 1-oz vials doz	1 00
Simple lb	50	COLCHICINE. Cryst., 15-grain.....gr	14
Spermaceti lb	70	C. P., Amorph., 15-grain vials.....gr	30
Turner's lb	60	COLOCYNTH. Apples, Trieste.....lb	60-65
Zinc, Carbonate, true lb	60	Apples, powdered lb	75
Zinc, Oxide lb	60	COMPOSITION POWDER, 2-oz papers..lb	35
CERIUM. Oxalate oz	09	CONFECTION. Aromatic lb	1 00
Oxalate, 1-lb. cartons.....lb	45	Opium lb	1 50
CHALK. Crayons, white lb	15	Rose, U. S. P. lb	65
French, cut lb	18-20	Senna, U. S. P. lb	70
French, powdered lb	5-8	Theriac lb	1 25
Precipitated, English lb	10-12	COPPER. Acetate, cryst., C.P., M.C.W....lb	74
Prepared in drops, bulk lb	7-8	Acetate, com'l, lump lb	40
Prepared in drops, 5-lb boxes.....lb	8-10	Acetate, Po. Verdigris lb	45
Prepared pink, 8-lb boxes.....lb	10	Ammoniated lb	59
White, in lumps lb	3-4	Arsenite, 1-oz vials, M. C. W. oz	19
CHARCOAL. Animal lb	8-10	Arsenite, 1-oz vials oz	19
Willow, powdered lb	15-20	Bromide oz	32
CHINA CLAY lb	10	Carbonate lb	38
CHINESE SHAVINGS lb	60	Nitrate lb	54
CHINOIDINE. 1-oz rolls oz	12	Sulphate, C. P., granulated, 1-lb. boxes...lb	23
CHLORAL HYDRATE, CROTON, 1-oz vial		Sulphate, Caustic Pencils doz	1 75
incl. oz	35	Sulphate, purified, 1-lb cartons.....lb	21
Crystals, M. C. W., 1s.....lb	1 35	COPPERAS. bbls $1\frac{1}{4}$ lb	3-4
Crystals, M. C. W., $\frac{1}{2}$ s.....lb	1 45	CORROSIVE SUBLIMATE. N. Y. Q....lb	95
Crystals, M. C. W., $\frac{1}{4}$ -lb cartons.....lb	1 50	Powdered, N. Y. Q. lb	95
Crystals, M. C. W., ozs.....lb	2 10	1-lb boxes, P. W. R. lb	95
Crystals, 1-lb g. s. b. incl., Schering....lb	1 35	COTOIN. Para, $\frac{1}{8}$ -oz.....oz	14 00
Crystals, $\frac{1}{2}$ -lb g. s. b. incl., Schering....lb	1 45	COTTON. Negative. oz	60
Crystals, $\frac{1}{4}$ -lb g. s. b. incl., Schering....lb	1 55	COWHAGE. 1-oz cans oz	55
Crystals, 1-oz g. s. vls. incl., Schering....oz	17	CREAM TARTAR, pure, powdered.....lb	34-37
CHLORALAMID 25 gramme	80	Pure, powdered, 25-lb box.....lb	30
CHLOROFORM. 1-lb. tin, N. Y. Q.....lb	52	CREOLIN. $\frac{1}{2}$ -lb.....doz	4 00
In 7-lb. bottle, N. Y. Q.....ea	42	1-lb doz	8 00
Squibb's, 1-500 gramme.....ea	1 00	CREOSOTE. Beechwood lb	94
CINCHONINE Alk'd pure 1-oz vials M.C.W.oz	25	$\frac{1}{2}$ -lb lb	1 10
Bisulphate, M. C. W. oz	18	$\frac{1}{4}$ -lb lb	1 20
Muriate, M. C. W. oz	17	CREOSOTE CARBONATE oz	65
Sulphate, 1-oz vials, M. C. W. oz	17	In $\frac{1}{4}$ -lb lb	9 25
CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz	50	In $\frac{1}{2}$ -lb lb	9 15
Bisulphate, 1-oz vials, M. C. W. oz	30	In 1-lb lb	9 10
Muriate, M. C. W. oz	32	CROCUS MARTIS lb	16
Salicylate, 1-oz vials, M. C. W. oz	34	CUDBEAR lb	30
Sulphate, 1-oz vials, M. C. W. oz	30	CUMARIN oz	45
Sulphate, 5-oz cans, M. C. W. oz	25	CUMENE (Cumol) lb	1 10
Sulphate, 1-oz vials, P. W. R. oz	28	CURCUMA. Powdered lb	16
CLOVES. Zanzibar lb	30	CUTTLEFISH lb	35
Zanzibar, powdered lb	35	Jeweler's lb	85
COBALT lb	25	Powdered lb	30
Cobalt, powdered lb	30	DATURINE. Alk., cryst., 5-gr.....ea	75
COCAINE. Alk., M. C. W., 1-oz v'ls, incl.oz	3 50	DEXTRIN. lb	12-15
Hydrochloride, M. C. W. oz	2 65	DIASTASE. of Malt oz	1 14
Hydrochloride Cryst., 1-oz v'ls, N.Y.Q.oz	2 65	DIGALEN. $\frac{1}{2}$ -oz bottles ea	1 00
Hydrochloride Cryst., $\frac{1}{2}$ -oz v'ls, N.Y.Q.oz	2 80	DIGITALIN. $\frac{1}{8}$ -oz vials oz	5 75
Hydrochloride Crys., $\frac{1}{4}$ -oz v'ls, N.Y.Q.oz	2 90	DIONIN. $\frac{1}{8}$ s. oz	6 25
Hydrochloride Cryst., $\frac{1}{8}$ -oz v'ls, N.Y.Q.oz	3 05	15-gr vials ea	35

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DOVER'S POWDER, U. S. P.....lb	1 70	Witch Hazel gal	80-90
DRAGON'S BLOOD, Mass. lb	55	Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05
Powdered lb	85	Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00
Reed's. lb	85	FAREOL. oz	50
DIURETIN. oz	1 80	FENETOLE lb	2 00
DUBOISINE. Sulphate, 10-gr vial.....	1 10	FERRATIN. Powder or tablets.....oz	85
EARTH, Fuller's, powdered. lb	8-10	FLAKE WHITE. English. lb	15
EIKONOGEN, lb, \$3.95; ½s, \$4.20.....oz	37	FLOUR. Gluten. lb	15
¼s. lb	4 80	Rice. lb	12
ELATERIN. 15-gr vial oz	1 25	FLOWERS. Althea. lb	40
ELATERIUM, ⅛-oz vials.....oz	2 25	Arnica lb	20-22
EMERY. Flour. lb	10-12	Arnica, powd. lb	25
Grain. lb	10-12	Calendula, new lb	90
EMETIN (Resinoid) oz	7 53	Chamomile, German, new.....lb	35
(Alkaloid), pure, 15-gr vial.....	1 25	Chamomile, Roman lb	40
ERGOT. Spanish. lb	65	Elder lb	30
Spanish, powd.....lb	65	Elder, pressed. oz	25
ERGOTIN. Bonjean oz	39	Kooso. lb	75
ERGOTOLE. S. & D.....doz	4 50	Kooso, powd. lb	80
ESERINE (Physostigmine), 5-gr Alkaloid..gr	13	Lavender. lb	35
Sulphate, 5-gr vials ea	50	Mullein.....lb	1 00
Sulphate, 10-gr vials ea	1 00	Orange.....lb	1 10
Sulphate, 15-gr vials ea	1 50	Poppy, red. lb	75
ETHER. Acetic, M. C. W., 1-lb. bot.....lb	61	Rose, red. lb	1 20
Benzoic, 1-oz bot. oz	34	Rosemary. lb	35
Butyric, 1-lb bot.....lb	1 25	FLOUR SPAR. Powdered.....lb	25
Chloric, U. S. P., M. C. W., 1-lb bot....lb	64	FORMALDEHYDE lb	32
Chloric, concent., M. C. W., 1-lb bot....lb	74	5-lb bot. lb	25
Formic, 1-lb bot. lb	1 59	FORMALIN. S. & G. lb	40
Hydrobromic, 1-oz bot. oz	20	FORMIN oz	18
Nitrous, conc., M. C. W., ¼-lb bot.....lb	1 20	GADUOL oz	37
Nitrous, conc., M. C. W., ½-lb bot.....lb	1 10	GAMBIER. lb	15
Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00	GARANTOSE. 550 times sweeter than sugar:	
Nitrous Spirit, 4-lb bot. lb	58	1-lb cans lb	2 25
Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	41	1-oz cans oz	20
Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	37	GELATIN. Cooper's, 12-lb case.....lb	65
Sulphuric, U.S.P., ¼-lb cans, P.W.R.....lb	58	Coxe's. doz	1 50
Sulphuric, U.S.P., 1-lb cans, P.W.R.....lb	41	French Pink. lb	75
Sulphuric, washed, 1-lb bot.....lb	42	French Gold Label. lb	55
Sulphuric, Squibb's, in 1-500 gm cans....ea	88	French Silver Label.....lb	40
Sulphuric, Squibb's, in 1-250 gm cans....ea	49	GLASS. Powdered. lb	15
Sulphuric, Squibb's, in 1-100 gm cans....ea	22	Soluble. lb	25
Valerianic oz	30	GLUCOSE. 1-lb bot.....lb	20
ETHYL. Bromide oz	20	GLUE. Common. lb	15
Chloride, 10 gramme tubes Bengue.....doz	5 00	White, No. 1. lb	25
Chloride, 30 gramme tubes Bengue.....doz	10 00	GLUTOL oz	65
Chlodire, 10 gramme ea	40	GLYCERINE. Price's. lb	70
Iodide (see Hydriodic Ether) oz	54	Pure, in 10-lb cans lb	22
EUCALYPTOL oz	16	Pure, in 50-lb cans lb	19½
EUCAINE. A or B, ⅓s.....oz	3 60	GLYCEROPHOSPHATES. Iron oz	32
EUDOXINE. oz	2 10	Lime oz	22
Tablets, 3-gr. oz	2 60	Potash oz	29
Tablets, 5-gr. oz	2 50	Soda oz	28
Tablets, 1-3 gr, ¼-oz bots.....oz	3 00	GLYCYRRHIZIN. Ammoniated oz	26
EUKATROL, powd.....oz	1 00	GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70
Tablets oz	1 00	And Sodium Chlor, 15-gr vials, P.W.R..doz	3 30
EUROPHEN. oz	1 80	Chloride, 15-gr vials, M. C. W.....doz	5 10
EXALGINE. oz	1 50	Chloride, 15-gr vials, P. W. R.....doz	5 10
EXTRACT. Licorice, Corigliano. lb	45	Mono-bromide, 15-gr vials.....ea	1 25
Licorice, Mellor & Rittenhouse.....lb	27-30	Tri-bromide, 15-gr vials ea	1 00
Licorice, M. & R., 25 and 50-lb box....lb	26	Tri-cyanide, 15-gr vials ea	2 00
Licorice, soft, perf., clearly soluble....lb	75	GOOSE GREASE. lb	60
Licorice, Y. & S.....lb	27-30	GRAINS. Paradise. lb	40
Licorice, powd. lb	35	Powdered. lb	45
Logwood, bulk lb	15	GUAIACOL. Carb. oz	1 50
Logwood, ¼s. lb	20	Merck's. oz	18
Logwood, ½s. lb	18	GUARANA. Powd lb	2 75
Logwood, 1s. lb	16	GUM. Aloes, Barbadoes.....lb	50
Male Fern, U. S. P.....lb	2 25	Aloes, Barbadoes, powd.....lb	55
Malt, dry lb	1 25		

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Aloes, Cape.	lb	20	HOPS, new, bulk.	lb	37
Aloes, Cape, powd.	lb	20-25	New, ozs.	lb	50
Aloes, Socotrine	lb	40	New, 1/4s, 1/2s.	lb	40
Aloes, Socotrine, powd.	lb	40	HYDROCHINON	oz	18
Ammoniac tears.	lb	40	.....	lb	1 42
Arabic, Turkey, first pick.	lb	55	HYDROGEN PEROXIDE, Drevet's U.S.P.,		
Arabic, Turkey, second pick.	lb	40	1-lb bots.	doz	3 00
Arabic, Turkey, sifted sorts.	lb	20	Drevet's U.S.P., 1/2-lb bots.	doz	1 90
Arabic, first pick, granulated.	lb	58	Drevet's U.S.P., 1/4-lb bots.	doz	1 40
Arabic, first pick, powd.	lb	60-65	Marchand's, 1-lb bots.	doz	8 00
Asafoetida, Calcutta.	lb	40	Marchand's, 1/2-lb bots.	doz	5 25
Asafoetida, powd.	lb	45	Marchand's, 1/4-lb bots.	doz	3 80
Asphaltum.	lb	15	Marchand's, 1/8-lb bots.	doz	2 25
Benzoin, marble, select.	lb	50	M. C. W., 1-lb bots.	doz	3 00
Benzoin, powd.	lb	55	M. C. W., 1/2-lb bots.	doz	1 80
Camphor, bulk	lb	90	M. C. W., 1/4-lb bots.	doz	1 20
Camphor, 1-oz blocks	lb	93	Oakland, 1-lb bots.	doz	6 50
Camphor, 24 to lb	lb	93	Oakland, 1/2-lb bots.	doz	4 00
Camphor, powd.	lb	1 10	Oakland, 1/4-lb bots.	doz	2 25
Catechu, refined.	lb	18	Oakland, 5-lb bots.	ea	1 59
Catechu, powd.	lb	30	HYDRO NAPHTHOL.	oz	75
Copal	lb	35	HYDRASTINE. Alkaloid	oz	10 04
Damar.	lb	38	Hydrochloride	oz	20 00
Galbanum.	lb	1 00	HYDRASTININE. Hydrochloride, 15-gr vls. ea		3 00
Gamboge	lb	1 10	HYDROQUINONE	oz	18
Gamboge, powd.	lb	1 15	HYOSCINE. Amorphous, 15-gr vials.	ea	2 00
Guaiac.	lb	35	Hydrobromate, 5-gr vials	ea	2 00
Guaiac, powd.	lb	40	Hydriodide, 5-gr vials	ea	2 00
Kino, true.	lb	75	Sulphate, 5-gr vials	ea	2 00
Kino, true, powd.	lb	80	HYOSCYAMINE. Alkaloid, crys. 15-gr vls. ea		4 75
Mastic tears	lb	80	Amorphous	gr	25
Myrrh, Turkey.	lb	35	Hydrobromate, Amorph., 15-gr.	ea	3 00
Myrrh, Turkey, powd.	lb	40	Sulphate, crys., 15-gr	ea	3 03
Olibanum tears	lb	30	Sulphate, Amorph., 5-gr vials.	ea	1 25
Opium	lb	6 25	IATROL.	oz	95
Opium, powd	lb	7 25	ICHTHARGAN	oz	3 00
Sandarac.	lb	45	ICHTHORFORM	oz	1 00
Scammony, Aleppo.	oz	40	ICHTHYOL, 1-oz vials	oz	32
Scammony, Virgin, true.	oz	75	1/4s	oz	4 25
Shellac, bleached.	lb	75	1/2s	oz	4 10
Shellac, orange.	lb	70	1s	oz	4 00
Shellac, ground.	lb	75	INDIGO, Manila, extra.	lb	75
Spruce.	lb	1 50	IODIPIN (10% Iodized Sesame oil)	oz	28
Tamarac, true.	lb	1 25	IODINE, Bromide, 1-oz vials, M.C.W.	oz	47
Thus.	lb	12	Chloride, 1-oz vials, M.C.W.	oz	52
Tragacanth, ribbon.	lb	90	Resublimed, 1-oz vials, M. C. W.	oz	35
Tragacanth, powd.	lb	80	Resublimed, M. C. W.	lb	3 43
GUTTA PERCHA. Crude, shavings.	lb	1 75	Resublimed, N. Y. Q.	lb	3 33
Crude, sheets.	lb	1 75	Resublimed, 1-lb bot., P. W. R.	lb	3 33
HEDONAL.	oz	1 60	Burnham's, soluble.	oz	1 00
HEMICRANIN	oz	90	IODOFORM, bulk, M. C. W.	lb	3 85
HEMOGALLOL	oz	80	Iodoform, 1-lb bot, N. Y. Q.	lb	3 83
Tablets	100	80	Iodoform, 1-lb bots., P. W. R.	lb	3 83
HEROIN. 1-oz.	oz	6 70	Cryst. or powd	oz	34
1/2-oz vial	oz	6 85	Deodorized.	oz	54
1/4-oz vial	oz	7 00	IODOL.	oz	1 25
15-gr vial	ea	29	IRON, Acetate, dry, 1-oz vials, M.C.W.	oz	24
Hydrochloride, oz vial	oz	6 70	Acetate, liquor.	lb	44
1/2-oz vial	oz	6 85	Albuminate.	oz	20
1/4-oz vial	oz	7 00	Ammoniated, M. C. W.	lb	44
15-gr vial	ea	29	And Ammonium Cit	lb	75
HEXAMETHYLENAMINE	lb	1 45-1 60	Arsenate, 1-oz vials.	lb	18
"	oz	16	By Hydrogen	lb	60
HIERA PICRA.	lb	50	Carbonate, precipitated.	lb	18
HOFFMAN'S ANODYNE.	lb	75	Carbonate, proto.	lb	42
HOMATROPINE, Alk'l'd, 5-gr vials.	ea	2 25	Carbonate, saccharated.	lb	45
HOMATROPINE. Alk'l'd, 5-gr vials.	ea	2 25	Chloride, 1-oz vials.	oz	8
Hydrobromate, 5-gr vials	ea	1 75			
Hydrochlorate, 5-gr vials	ea	2 10			
HOMOglobin. Powd	oz	1 04			

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Chloride, crystal. lb	34	Bromide. oz	24
Chloride, sol. for tincture.....pt	35	Carbonate.....lb	12
Citrate, soluble, 1-oz vials.....oz	13	Chloride, 1-oz vials.....oz	11
Citrate, soluble, N. Y. Q.....lb	75	Chromate, M. C. W.....lb	19
Citrate, soluble, M.C.W. lb	75	Iodide, 1-oz vials, M. C. W.....oz	27
Citrate and quinine, N. Y. Q.....lb	2 00	Nitrate, 1-lb boxes, M. C. W.....lb	23
Citrate and Quinine, sol., M. C. W....lb	2 00	Nitrate, chemically pure, M. C. W.....lb	40
Citrate and Quinine with Strych., M.C.W.lb	2 55	Oxide, chemically pure, M. C. W.....lb	84
Citrate and Quinine with Strych., M.C.W.oz	26	Oxide lb	84
Citrate and Strychnine, 1-oz vials, M.C.W.oz	13	Subacetate, sol. lb	35
Ferrocyanide, 1-oz vials, M. C. W.....oz	10	Sulphate, pure, M. C. W.....lb	63
Ferrocyanide, M. C. W.....lb	65	Tannate, 1-oz vials, M. C. W.....oz	24
Filings.....lb	16	LEAVES, Aconite, German.....lb	30
Glycerino Phosphate. oz	32	Aconite, powd. lb	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aconite, pressed. oz	25
Iodide, 1-oz vials, M. C. W.....oz	36	Angelica, pressed. oz	25
Lactate, 1-oz vials, M. C. W.....oz	10	Bay, bulk. lb	15
Lactophosphate, 1-oz vials, M. C. W.....oz	19	Belladonna, English, bts.....lb	25
Nitrate, sol., U. S. P., M. C. W.....lb	34	Belladonna. lb	30
Oxide, black. lb	49	Belladonna, powd. lb	35
Oxide, brown, com'l lb	22	Belladonna, pressed. oz	35
Oxide, brown, pure lb	74	Blessed Thistle, pressed.....oz	34
Peptonized oz	24	Borage, pressed. oz	35
Phosphate, precipitate. lb	39	Buchu, long. lb	55
Phosphate, U. S. P., scales, N. Y. Q.....oz	13	Buchu, short. lb	40
Phosphate, U. S. P., scales, N. Y. Q.....lb	75	Buchu, powd. lb	40
Pyrophosphate, soluble, N. Y. Q.....lb	75	Buckbean, pressed oz	30
Pyrophosphate, U. S. P., 1880, N. Y. Q.oz	13	Cocoa.....lb	45
Pyrophosphate, U. S. P., 1880, N. Y. Q..lb	75	Conium. lb	30
Reduced (Quevenne's) lb	58	Conium, powd. lb	35
Reduced (Quevenne's) oz	10	Conium, pressed. oz	30
Salicylate, 1-oz vials, M. C. W.....oz	15	Coltsfoot, pressed. oz	25
Subsulphate, M. C. W.....oz	6	Damiana.....lb	30
Subsulphate, M. C. W.....lb	36	Digitalis, pressed. oz	35
Subsulphate, sol., M. C. W.....lb	23	Digitalis. lb	35
Succinate oz	60	Digitalis, powd. lb	35
Sulphate, dried. lb	20	Eucalyptus. lb	20
Sulphate, gran., pure.....lb	18	Grindelia Robusta lb	25
Sulphate, pure, cryst., M. C. W.....lb	20	Grindelia Squarosa lb	40
Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13	Hemlock, pressed. oz	30
Tannate, 1-oz vials, M. C. W.....oz	22	Henna. lb	50
Tartrate and Ammonia, M. C. W.....oz	11	Henna, powd. lb	55
Tartrate and Ammonia, M. C. W.....lb	72	Henbane. lb	30
Tartrate and Potassium, M. C. W.....oz	10	Henbane, powd. lb	30
Tartrate and Potassium, scale, M. C. W...lb	58	Henbane, pressed, oz.....lb	30
Tersulphate, sol., U. S. P.....lb	40	Jaborandi. lb	35
Valerianate. oz	22	Jaborandi, powd. lb	40
IODOTHYRINE. oz	3 40	Laurel. lb	25
ISINGLASS, American lb	1 05	Lovage, pressed, oz.....lb	30
Russian. lb	5 25	Lungwort, pressed, oz.....lb	34
KAMALA. lb	65	Marjoram, sweet lb	36
Powd. lb	75	Rosemary, bulk. lb	20
KAOLIN.....lb	10	Rosemary, pressed, oz. lb	25
KERATIN (Pepsinized), 1/8s oz	3 53	Sage, oz. lb	25
KOUSSO. lb	75	Savin, pressed, oz.....lb	25
Powd.....lb	75	Senna, Alexandria, garbeled.....lb	30
KRYOFINE. oz	1 00	Senna, Alexandria, powd. lb	30
LACTUCARIUM oz	80	Senna, Tinnevelly, select.....lb	25
LACTOPHEPIN. oz	1 00	Stramonium, powd. lb	30
LANOLIN. lb	80	Stramonium, pressed, oz.....lb	25
Lanae Adeps, 1-lb cans, B. J. D.....lb	35	Thyme, pressed, oz.....lb	25
Lanae, British. lb	35	Uva, Ursi. lb	20
LANUM (Adeps Lanae Hydrosus) lb	40	Witch Hazel, pressed, oz.....lb	25
LARD, Benzoated, 5-lb cans.....lb	27	LEECHES. ea	10
LARGIN oz	1 75	2 dozen lots.....ea	8
LEAD. Acetate, med. crys. or gran.....lb	33	LEPTANDRIN. oz	35
Acetate, white. lb	18	LIME, Chloride, 35-lb cans.....lb	5
Acetate, white, powd.....lb	25	Chloride, in bbls of 350 lbs.....lb	2 3/4
Acetate, purified, gran., 1-lb cart., M.C.W.lb	33	Chloride, 1b cans doz	90
		Chloride, 1/2-lb cans.....doz	65

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Chloride, ¼-lb cans.....doz	45	Subsulphate, 1-oz vials. oz	15
LITHARGE. lb	12	Subsulphate lb	1 12
LITHIUM, Benzoate, 1-oz vials, M.C.W....oz	15	Sulphuret, black. lb	78
Bromide, 1-oz vials, M. C. W.....oz	22	White Chalk, 1-lb cartons lb	46
Carbonate, M. C. W.....oz	17	METHYL, SALICYLATE. lb	80
Citrate, 1-oz vials, M. C. W.....oz	17	METHYLENE. Blue Medicinal oz	45
Iodide oz	37	MILK SUGAR, Cryst.....lb	33
Salicylate, 1-oz vials, M. C. W.....oz	15	Powdered, bulk lb	23
LITMUS. lb	50	M. C. W., 1-lb cartons lb	25
Paper. doz	50	MORPHINE. Sulphate, ⅛s, 1-oz box, M.	
LODESTONE. lb	75	C. W. oz	3 55
LONDON PURPLE. lb	20	Sulphate, 1⅛s, 2½-oz box, M. C. W....oz	3 50
LOSOPHAN. oz	1 80	Sulphate, 1-oz vials, M. C. W.....oz	3 30
LUPULIN, German. lb	75	Sulphate, 5-oz can, M. C. W.....oz	3 25
LYCOPODIUM. lb	75	Sulphate, 1⅛s, 1-oz box, N. Y. Q.....oz	3 55
LYCETOL. oz	4 25	Sulphate, 1⅛s, 2½-oz box, N. Y. Q.....oz	3 50
LYSOL, 1-gal. jugs.....gal	4 00	Sulphate, 1-oz vials, N. Y. Q.....oz	3 30
Pints. doz	8 00	Sulphate, ⅛s, 2½-oz box, P. W. R.....oz	3 50
MACE.....lb	75	Sulphate, 1-oz bot, P. W. R.....oz	3 30
Powd. lb	75	In 10-oz lots, 10c oz less.	
MADDER, Dutch. lb	15	Morphia, Acetate, ⅛s, M. C. W.....oz	4 00
MAGNESIUM, Benzoate, M. C. W.....oz	24	Morphia, Muriate, ⅛s, M. C. W.....oz	4 00
Bromide, Mallinckrodt's. oz	25	Morphia, Valerianate, ⅛s, M. C. W.....oz	5 00
Calcined, Jennings', 1-lb cans.....lb	85	Other salts or Morphine subject to market	
Calcined, K. & M.'s, 1-lb cans.....lb	75	price based on above.	
Calcined, K. & M.'s, heavy.....lb	80	MOSS, Iceland. lb	18
Carbonate, Jennings', 2-oz.....lb	35	Irish. lb	15
Carbonate, Jennings', 4-oz.....lb	35	Irish, bleached. lb	20
Carbonate, K. & M.'s, 1-oz.....lb	27	MUSK, Chinese oz	40
Carbonate, K. & M.'s, 2-oz.....oz	23	Tonquin, grain dr	3 25
Carbonate, K. & M.'s, 4-oz.....lb	23	MUSTARD, Colman's, 4-oz cans.....doz	1 75
Carbonate, K. & M.'s, small sq.....lb	60	Colman's, 5-lb cans lb	50
Carbonate, powd., in 65-lb bbls.....lb	13	Ground, Domestic, 5-lb cans.....lb	18
Carbonate, powd., in 10-lb boxes.....lb	16	NAPHTHALIN, Balls. lb	5-7
Citrate, dry, English.....lb	65	Resublimated lb	27
Citrate, sol. doz	1 75	Pure, 1-lb cartons, M. C. W.....lb	27
Glycerinophosphate oz	44	NAPHTHOL, Alpha. oz	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Beta. oz	10
Hypophosphite, M. C. W.....lb	1 69	NICKEL. Bromide oz	32
Hypophosphite oz	20	Bromide, 1-oz vials, M.C.W.....oz	29
Iodide, M. C. W.....oz	47	Nickel and Ammonia Sulphate, M. C. W..lb	34
Sulphite, M. C. W.....lb	49	Sulphate, 1-oz vials, M. C. W.....oz	9
MANGANESE, Black, Oxide lb	8-10	Sulphate oz	10
Phosphate, M. C. W.....oz	18	NOSOPHEN.....doz	4 50
Carbonate, 1-oz vials, M. C. W.....oz	14	NUTGALLS, Aleppo. lb	30
Chloride, 1-oz vials, M. C. W.....oz	14	Aleppo, ground. lb	35
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aleppo, powd. lb	35
Hypophosphite oz	20	NUTMEGS, Macassar, large.....lb	60
Iodide, 1-oz vials, M. C. W.....oz	47	Penang, powd. lb	65
Peptonized oz	29	NUTS, Areca lb	30
Phosphate, M. C. W.....oz	18	Areca, powd. lb	40
Sulphate, 1-oz vials, M. C. W.....oz	9	Kola. lb	35
MANNA. Large flake lb	1 15	Kola, powd. lb	40
Small flake lb	75	NUX VOMICA. lb	25
MENTHOL lb	3 40	Powdered or rasped.....lb	25
Cryst., 1-oz vials, Mallinckrodt's.....oz	30	OAKUM lb	15
Crystallized lb	3 50	Surgeon's. lb	20
MERCURY. Chloride lb	99	OIL, Almonds, Bitter, true, Merck's.....lb	6 59
Ammoniate, d white precip. lb	1 25	Almonds, Bitter, Allen's.....oz	75
Bisulphate lb	76	Almonds, Sweet, Allen's.....lb	75
Cyanide oz	31	Almonds, Sweet lb	50-65
Iodide, green, 1-oz vials, M. C. W.....oz	24	Amber, rectified. lb	60
Iodide, red, 1-oz vials, M. C. W.....oz	26	Anise lb	1 75-2 00
Iodide, yellow, 1-oz vials, M. C. W.....oz	24	Bay Leaves, true.....oz	35
Nitrate, proto., 1-oz vials, M. C. W.....oz	27	Bay Leaves lb	3 75-4 00
Nitrate, solution, 1-oz vials.....oz	27	Benne.....gal	1 20
Oxide, black, 1-oz vials.....oz	18	Bergamot lb	4 75-5 00
Oxide, red (red precip.).....lb	1 20	Birch Tar, rectified.....lb	1 25
Oxide, yellow, 1-oz vials oz	19	Cade.....lb	50
Salicylate, M. C. W.....oz	27	Cajuput (21-oz bottles).....lb	1 10-1 35
		Calamus. oz	45

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Camphor, E. I. lb	45
Caraway, seed. lb	2 25
Cardamon. oz	2 50
Cassia lb	1 85-2 00
Castor, Baker's A. A. gal	1 38-1 50
Castor, Marsh's gal	1 34-1 45
Castor, 2-oz bottles.....doz	85
Castor, 4-oz bottles.....doz	1 25
Castor, 6-oz bottles.....doz	1 75
Castor, 8-oz bottles.....doz	2 25
Castor, 12-oz bottles.....doz	2 50
Castor, 16-oz bottles.....doz	3 75
Cedar lb	60-100
Cedrat. oz	40
Celery. oz	1 40
Chamomile, German. oz	5 00
Chamomile, Roman. oz	1 75
China, Nut. gal	1 00
Cinnamon, Ceylon. oz	90
Citronella lb	75-85
Cloves lb	1 40-1 65
Cocanut lb	20-25
Codliver, White, Norwegian.....gal	1 65
Codliver, white, Norwegian, 5-gal cans..gal	1 50
Cognac, green. oz	2 50
Cologne. oz	50
Copaiba.....lb	1 75
Coriander. oz	90
Cotton Seed (salad), 5-gal can.....gal	95
Cotton Seed (salad), 1-gal can.....gal	1 20
Croton, 24-oz bots.....lb	1 50-1 65
Croton oz	20
Cubebs lb	2 00-2 25
Ergot, Keith's. oz	57
Erigeron, Keith's. oz	38
Erigeron lb	2 75
Eucalyptus lb	85
Fennel Seed lb	2 25
Fusil, purified. lb	80
Geranium, Rose, Chris.....oz	75
Hemlock. lb	85
Hydrocarbon. gal	1 25
Jasmin, alcoholic. lb	3 00
Juniper Berries. lb	1 25-1 50
Juniper, wood. lb	75
Lard. gal	1 10
Laurel, expressed. lb	60
Lavender, Flowers lb	3 85
Lavender, Garden lb	1 25
Lemon lb	2 00
Lemon, Sanderson's lb	2 25
Lemon, Grass lb	2 25
Linseed, raw gal	74
Linseed, raw, case gal	67
Linseed, boiled gal	74
Linseed, boiled, case gal	69
Mace, expressed. lb	1 75
Male Fern, ethereal. oz	35
Myrbane. lb	40
Mullein.....oz	45
Musk, alcoholic. oz	1 00
Mustard, essential. oz	50
Mustard, expressed. gal	90
Neatsfoot, No. 1. gal	90
Neroli, Petal. oz	3 00
Neroli, Bigarade. oz	5 75
Neroli, Petit Grain. oz	55
Nutmegs, essential. oz	35
Olive, pure, Malaga.....gal	1 25
Olive, California gal	2 75
Olive, 1/2-gals.....gal	3 00

Olive, small doz	3 75
Olive, large. doz	7 50
Olive, imported. gal	2 00-2 10
Orange, bitter. lb	4 50
Orange, sweet lb	3 25
Origanum, pure. lb	60
Origanum, Chris. lb	1 85
Palm. lb	25
Patchouly.....oz	75
Pennyroyal lb	4 00
Pepper, black. oz	20
Peppermint, Hotchkiss lb	3 25-3 50
Peppermint, Wayne Co. lb	2 75-3 00
Peppermint, Western lb	2 75-3 00
Pimento. oz	30
Pinus, Sylvestris, German. lb	1 50
Pinus, Pumilio. lb	4 50
Pinus Pumilio. oz	40
Rhodium oz	35
Rose, Kizanlik oz	7 50
Rosemary, flowers. lb	1 25-1 50
Rue.....oz	40
Sandalwood, English. lb	5 50
Sandalwood, German. lb	3 00-3 20
Sassafras. lb	90-1 00
Savin. lb	1 75
Spearmint lb	3 25
Sperm.....gal	1 00
Spike. lb	35
Spruce.....lb	85
Tansy lb	5 50
Tar.....lb	25
Thyme, white. lb	1 50
Turpentine, pure. lb	55
Wine, light. oz	40
Wine, heavy. oz	50
Wintergreen lb	4 00-4 25
Wormseed.....lb	3 75-4 00
Wormwood lb	5 25
Ylang Ylang. oz	4 50
ointment, Basilicon. lb	65
Citrine. lb	65
Iodine.....lb	1 25
Mercurial, 1/2 m.....lb	65
Mercurial, 1/3 m.....lb	55
Stramonium. lb	75
Tar.....lb	50
Zinc, benzoated. lb	65
Zinc, oxide. lb	65
OPIUM, powd. or gran., P. W. R.....lb	9 46
ORTHOFORM. oz	1 40
PANCREATIN. Pure oz	44
Pure, scales, P. D. & Co.....oz	50
PAPAIN, Boehringer. oz	75
PARAFFINE, refined. lb	12-15
PARALDEHYDE lb	99
.....oz	14
PARIS GREEN. lb	38-42
PASTILLES, Fumigating, black.....lb	50
Fumigating, red lb	50
PEARL ASH. lb	8-10
PEEL, Orange, sweet, ground.....lb	20
Orange, bitter, coarse.....lb	20
Orange, bitter, powdered.....lb	20
Orange, sweet, quarters.....lb	20
PELLETIERINE, Sulphate, 15-gr vial.....	1 75
Tannate, 15-gr vial lb	35
PEPPER, black, Singapore, sifted.....lb	30
Black, powd. lb	30

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White. lb	40	Nitrate, chemically pure, M. C. W. lb	30
White, powd. lb	40	Oxalate, neutral. lb	28
PEPSIN, pure, U. S. P. lb	4 50	Permanganate, cryst., 1-oz vials. oz	8
Powd. or scales. lb	4 50	Permanganate, large cryst., pure, M.C.W. .lb	27
Powd., Ph. G. III. oz	25	Permanganate, small cryst. lb	25
PEPTONE, Merck's, dry, from meat. oz	34	Phosphate, 1-oz vials. oz	11
PETROLATUM, 1-lb cans. doz	2 00	Phosphate lb	64
50-lb pails. lb	7	Prussiate, red. lb	65
25-lb pails. lb	7½	Prussiate, yellow. lb	35
10-lb cans. lb	9	Sulphate, cryst. or powd. lb	16
5-lb cans. lb	10	Sulphate, chemically pure. lb	60
Snow White, 50-lb pails. lb	15½	Sulphide (Liver Sulphur) lb	24
Snow White, 25-lb pails. lb	16½	Tartrate (soluble Tartar) lb	59
Snow White, 10-lb cans. lb	18	POWDER, Antimonial. lb	85
Snow White, 5-lb cans. lb	25	Aromatic. lb	1 25
Snow White, 1-lb cans. lb	30	Carbolic Acid, disinfecting. doz	1 50
PHENACETINE. oz	33	Chalk, aromatic. lb	75
PHENILINE. oz	1 00	Chalk, compound. lb	75
PHENOLPHTHALEIN oz	34	Chalk and Opium. lb	2 50
PHOSPHORUS, 1-lb cans. lb	85	Composition, 2-oz papers. lb	35
½-lb cans. lb	95	Dover's lb	1 70
¼-lb cans. lb	1 05	Insect, Buhach, 6-lb cans. lb	60
Amorphous. lb	1 44	Insect, Dalmatian. lb	25-30
PIPERAZIN, Schering's 10-gm vials. bot	1 50	Insect, Mrs. Hill's, 6-lb cans. lb	35
½-oz and 1-oz. oz	4 25	Jalap, comp. lb	1 00
PIPERIN, 1-oz vials, Mallinckrodt's. oz	62	Licorice, comp. lb	25
PIPE CLAY. lb	12	Licorice, comp., 2-oz packages. doz	75
PITCH, Burgundy lb	15	Rhubarb, comp. lb	1 50
PITH, Sassafras. lb	1 50	Tooth. lb	50
PLATINUM and Barium Cyanide, cr. gr	15	PROPYLAMIN, 10% solution oz	55
Chloride oz	17 00	Hydrochlorate, ½-oz vials. oz	3 50
Chloride, solution, 10%. oz	2 82	PROTARGOL. oz	1 25
PODOPHYLLIN oz	30	PULVIS ANTIMONIALIS. lb	85
POPPY HEADS, German. lb	30	PYOKTANIN, Blue or Yellow oz	1 50
POTASH, Babbitt's, 4 doz in case. case	3 40	PYRIDINE oz	32
Caustic, pure, by alcohol. lb	60	QUICKSILVER. lb	80
Caustic, white. lb	37	QUINACETINE. oz	85
Caustic, 10-lb cans. lb	10-12	QUINALGIN. oz	1 25
Solution (liq. potass.) lb	35	QUININE, Alkaloid, 1-oz vials, M.C.W. oz	58
POTASSIUM. Acetate, M. C. W., 1-lb. lb	42	Bisulphate, 1-oz vials, M.C.W. oz	28
Antimonate lb	1 09	Bisulphate, 5-oz cans, M.C.W. oz	26
Arsenate, 1-oz vials oz	14	Citrate, 1-oz vials, M.C.W. oz	57
Bicarbonate, cryst., M. C. W. lb	20	Muriate, 1-oz vials, M.C.W. oz	51
Bicarbonate, granulated, M. C. W. lb	20	Phosphate, 1-oz vials, M.C.W. oz	55
Bicarbonate, powd. lb	20	Salicylate, 1-oz vials, M.C.W. oz	54
Bichromate lb	18-20	Sulphate, 1-oz cans, M.C.W. oz	28
M. C. W. lb	34	Sulphate, 5-oz cans, M.C.W. oz	25
Bromide, crys. or gran., M. C. W. lb	27-30	Sulphate, 25-oz cans, M.C.W. oz	21
Carbonate, purified, M. C. W. lb	41	Sulphate, 50-oz cans, M.C.W. oz	20
Carbonate, bulk. lb	15	Sulphate, 100-oz cans, M.C.W. oz	18
Caustic, pure lb	37	Sulphate, 1-oz cans, N. Y. Q. oz	28
Caustic, C. P. lb	2 59	Sulphate, 5-oz cans, N. Y. Q. oz	25
Chlorate, cryst. lb	16-18	Sulphate, 25-oz cans, N. Y. Q. oz	21
Chlorate, gran., pure, M. C. W. lb	22	Sulphate, 100-oz cans, N. Y. Q. oz	18
Chlorate, powd. lb	16-18	Sulphate, 1-oz cans, P. W. R. oz	28
Chloroplatinite, M. C. W., 15-gr vials. each	80	Sulphate, 5-oz cans, P. W. R. oz	25
Chromate, yellow, neutral. lb	40	Sulphate, 25-oz cans, P. W. R. oz	21
Citrate, M. C. W. lb	66	Sulphate, 100-oz cans, P. W. R. oz	18
Cyanide, fused, M. C. W. lb	45	Tannate, Neutral oz	38
Cyanide, C. P. 99%. lb	52	Tannate, 1-oz vials, M.C.W. oz	37
Cyanide, Miner's, 10-lb tin. lb	28	Valerianate, 1-oz vials, M.C.W. oz	57
Ferricyanide, chem. pure, M. C. W. lb	1 34	QUINOLINE oz	45
Ferrocyanide, pure lb	59	Tartarate oz	45
Glycerinophosphate. oz	26	QUINIDINE. N. Y. Q., 1-oz vial. oz	85
Hypophosphite, M. C. W. lb	99	Sulphate, N. Y. Q., 1-oz vial. oz	75
Iodide, M. C. W., 1-lb boxes. lb	2 52	RED SAUNDERS. lb	12
Iodide, N. Y. Q., 1-lb boxes. lb	2 52	RESIN, Jalap oz	54
Iodide, cryst. or gran., 1-lb boxes, P.W.R. .lb	2 52	RESORCINOL (Resorcin) M. C. W. lb	1 30
Nitrate, cryst. lb	10-12	Resorcinol (Resorcin) M. C. W. oz	17
Nitrate, granulated. lb	10-12		

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ROOT, Abscess, pressed, lb.....lb	40	Licorice, powd	lb	16-20
Aconite, powd.....lb	35	Mandrake, pressed, lb.....lb	30	
Aconite, pressed.....lb	32	Mandrake, powd	lb	35
Copaiba. lb	50	Marshmallow, cut	lb	34
Scamony	oz	Marshmallow, powd	lb	35
Alkanet	lb	Musk	lb	30
Alkanet, powd.....lb	30	Orris, Florentine	lb	25
Angelica, pressed	lb	Orris, Florentine, Fingers.....lb	25	
Angelica, powd	lb	Orris, Florentine, granulated.....lb	35	
Arnica, pressed	lb	Orris, Florentine, powd.....lb	30	
Belladonna, pressed, lb.	lb	Pareira Brava, pressed	lb	34
Belladonna, powd.....lb	28	Pink. lb	85	
Berberis Aquif, pressed, lb.....lb	45	Pink, powd.	lb	90
Beth, pressed, lb.....lb	30	Pleurisy, pressed	lb	25
Beth, powd	lb	Poke, pressed	lb	25
Blackberry, pressed, lb.....lb	30	Poke, powd	lb	20
Blood, pressed, lb.....lb	30	Pond Lily, white, pressed	lb	40
Blood, powd.....lb	35	Pond Lily, white, powd	lb	40
Blue Flag, pressed	lb	Pond Lily, yellow, pressed	lb	30
Burdock, pressed, lb.	lb	Pond Lily, yellow, powd	lb	35
Burdock, powd.....lb	25	Rhatany	lb	30
Calamus, peeled	lb	Rhatany, powd	lb	35
Calamus, white, peeled and split.....lb	50	Rhubarb, East India	lb	75
Calamus, powd.....lb	35	Rhubarb, East India, powd	lb	75
Cohosh, black, pressed.	lb	Rhubarb, cut in cubes, No. 1.....lb	25	
Cohosh, black, powd.	lb	Rhubarb, cut in cubes, No. 2.....lb	00	
Cohosh, blue, pressed, lb.....lb	25	Rhubarb, cut in fingers, No. 1.....lb	50	
Cohosh, blue, powd.....lb	25	Rhubarb, cut in fingers, No. 2.....lb	25	
Colchicum	lb	Salep, powd	lb	00
Colchicum, powd	lb	Sarsaparilla, American	lb	35
Columbo, foreign.	lb	Sarsaparilla, American, powd	lb	35
Columbo, powd.....lb	25	Sarsaparilla, Honduras	lb	65
Comfrey, pressed, lb.	lb	Sarsaparilla, Honduras, ground.....lb	65	
Comfrey, powd.....lb	25	Sarsaparilla, Honduras, powd	lb	65
Cranesbill, pressed, lb.....lb	25	Sarsaparilla, Mexican	lb	20
Culvers, pressed, lb.....lb	25	Sarsaparilla, Mexican, ground	lb	25
Culvers, powd	lb	Sarsaparilla, Mexican, powd	lb	25
Dandelion, Am., pressed, lb.....lb	35	Senega, pressed	lb	75
Dandelion, powd	lb	Senega, powd.	lb	80
Dwarf Elder, pressed, lb.....lb	35	Silkweed, pressed	lb	28
Elecampane, pressed, lb.	lb	Skunk Cabbage, pressed	lb	30
Elecampane, powd	lb	Skunk Cabbage, powd	lb	35
Gelsemium, pressed, lb.....lb	25	Snake, Canada, pressed.....lb	65	
Gelsemium, powd	lb	Snake, Virginia	lb	65
Gentian	lb	Snake, Virginia, powd	lb	70
Gentian, ground	lb	Spikenard, pressed	lb	72
Gentian, powd	lb	Spikenard, powd	lb	30
Ginger, African.	lb	Squills, white, sliced.	lb	20
Ginger, African, powd	lb	Squills, powd	lb	60
Ginger, Jamaica, bleached.	lb	Stillingia, pressed	lb	25
Ginger, Jamaica, bleached, powd.....lb	30	Stillingia, powd	lb	30
Ginseng	lb	Stone, pressed	lb	25
Golden Seal	lb	Sweet Flag, pressed	lb	25
Golden Seal, powd	lb	Turkey Corn	lb	28
Hellebore, black, pressed.....lb	25	Unicorn, true, pressed	lb	35
Hellebore, black, powd.....lb	25	Unicorn, true, powd	lb	40
Hellebore, white, pressed, lb.....lb	25	Unicorn, false, pressed.....lb	40	
Hellebore, white, powd.....lb	25	Unicorn, false, powd	lb	45
Indian Hemp, black, pressed, lb.....lb	35	Valerian, English, bulk.....lb	35	
Indian Hemp, black, powd	lb	Valerian, English, powd	lb	35
Indian Hemp, white, pressed	lb	Valerian, German	lb	30
Indian Hemp, white, powd	lb	Valerian, German, powd	lb	30
Ipecac, Rio, powd.....lb	50	Yellow Dock	lb	25
Jalap	lb	Yellow Dock, ground	lb	30
Jalap, powd	lb	Yellow Dock, powd	lb	30
Kava Kava	lb	Zedoary	lb	30
Ladies' Slipper, pressed, lb.....lb	75	ROSIN, No. 1.	lb	6-8
Licorice, select	lb	Barrel.		7 75
Licorice, pipestem	lb	ROUGE, Jewelers'	lb	50
Licorice, cut, Russian	lb	SACCHARIN	tin	35

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SAFFRON, American	lb	60	Worm, Levant	lb	35
Spanish.	oz	80	Worm, Levant, powd	lb	40
Spanish	lb	10 50	SEIDLITZ MIXTURE	lb	28-30
SAL, Acetosella	lb	30	SILVER, Bromide, 1-oz. vials, M. C. W.....	oz	1 19
Epsom	lb	2½-5	Chloride, 1-oz vials, M. C. W.....	oz	84
Glauber	lb	1½-4	Cyanide, 1-oz vials, M. C. W.....	oz	1 04
Nitre	lb	10-12	Iodide, 1-oz vials, M. C. W.....	oz	1 04
Nitre, granulated.	lb	10-12	Lactate	oz	1 04
Nitre, powd.	lb	10-12	Nitrate, cryst., 1-oz vials, M. C. W.....	oz	53
Prunelle	lb	45	Nitrate, cones, 1-oz vials.....	oz	65
Rochelle.	lb	28-30	Nitrate, fused (Lunar caustic), 1-oz vials,		
Soda.	lb	3-5	M. C. W.	oz	56
Tartar.	lb	15	Nitrate, cryst., 1-oz vials, P. W. R.....	oz	53
SALICINE	oz	37	Nitrate, cryst., 1-lb vials, P. W. R.....	lb	8 25
.....	lb	4 60	Nitrate, fused, No. 2, 1-oz vials.....	lb	42
SALIPYRINE	oz	1 00	SNUFF, Garrett's, 1-oz tins.....	doz	60
SALOL, Mallinckrodt's.....	oz	15	Garrett's, 1½-oz tins.	doz	1 10
Salol, Mallinckrodt's, cartons	lb	1 17	Garrett's, 3½-oz tins.....	doz	1 75
SALOPHEN	oz	1 00	Garrett's, 6-oz bots.....	doz	3 25
SANTONIN, bulk, M. C. W.....	lb	8 25	Maccaboy, 3½-oz bots.....	doz	2 00
1-oz vials, M. C. W.....	oz	60	Rappee	lb	65
SEED, Angelica	lb	25	Rappee, 3½-oz bots.....	doz	2 00
Anise, Italian	lb	20	Scotch, Lorillard's	lb	65
Anise, Italian, powd.....	lb	25	Scotch, Lorillard's	doz	2 00
Anise, Star	lb	45	Scotch, Garrett's Bladders.....	lb	55
Bird, mixed, bulk.	lb	8	SOAP, Castile, Conti's, white, box 14c less..	lb	17
Bird, mixed, boxes.	doz	1 00	Castile, mottled, box 8½c; less.....	lb	12
Bird, mixed, cases, 30 pks.....		2 25	Castile, powdered, white.....	lb	35
Burdock	lb	25	Green, German	lb	25
Canary	lb	9-10	Opodeldoc	lb	65
Carraway, Dutch.	lb	15	SODA, Ash.	lb	2½-5
Carraway, powd.	lb	17	Caustic, Sticks	lb	34
Cardamon, Malabar.	lb	1 00	Caustic, com., drums.....	lb	3-4
Cardamon, Mangalor, bleached.....	lb	1 25	Caustic, com., 10-lb drums.....	lb	6½-7½
Cardamon, powd.	lb	1 00	Caustic, purified, fused.....	lb	40
Celery	lb	25	Sal (carbonate) bbls., 1¼c.....	lb	3
Colchicum.	lb	50	Soda Silicate, dry	lb	35
Colchicum, powd.	lb	55	Soda Silicate, liquid.....	lb	15-25
Conium	lb	25	SODIUM, 1-oz vials, M. C. W.....	oz	25
Coriander, German.	lb	14	Acetate, M. C. W., carton.....	lb	17
Coriander, German, powd	lb	20	Arsenate, 1-oz vials.....	oz	9
Cumin	lb	18-20	Arsenite, 1-oz vials, M. C. W.....	oz	10
Dill	lb	25	Benzoate, 1-oz vials, M. C. W.....	oz	11
Fennel.	lb	18	Benzoate, 1-lb bots.	lb	56
Fennel, powd.	lb	20	Benzoate, true fr. Gum Benzoin.....	oz	29
Flax, recleaned.	lb	5½-6	Bicarbonate, C. P., powd., M. C. W.....	lb	15
Flax, ground.	lb	5½-6	Bicarbonate, kegs, 3c.....	lb	4-5
Flax Oil Cake	lb	2½-3½	Bisulphite, dry, pure	lb	27
Foenugreek, powd	lb	12	Borate, neutral	oz	19
Hemp, recleaned	lb	6½-8	Bromide, M. C. W.....	lb	32
Henbane	lb	35	Cacodylate	oz	84
Larkspur.	lb	55	Carbonate, pure cryst., 1-lb car., M. C. W..	lb	11
Lobelia.....	lb	60	Carbonate, pure gran., 1-lb car., M. C. W..	lb	11
Lobelia, powd.	lb	65	Carbonate, dried, C. P., 1-lb car.....	lb	27
Millet, American.	lb	6-8	Cinnamate	oz	59
Mustard, black, Trieste	lb	10-12	Citrate, M. C. W.....	lb	67
Mustard, white	lb	10-10	Glycerophosphate, 75%	oz	24
Poppy Blue	lb	16	Glycocholate.	oz	1 04
Pumpkin	lb	22	Hypophosphite, purified	lb	1 14
Rape, California.	lb	6-8	Hypophosphite, 1-oz vials	oz	15
Quince	lb	85	Hyposulphite, 112-lb kegs.	lb	3
Sabadilla	lb	35	Hyposulphite, less	lb	5
Sabadilla, powd	lb	30-35	Iodide, 1-oz vials, M. C. W.....	oz	31
Stavesacre	lb	40	Iodide, M. C. W.....	lb	3 53
Stavesacre, powd	lb	45	Nitrate, cryst., C. P.....	lb	29
Stramonium	lb	25	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Stramonium, powd	lb	30	Phosphate, pure, recryst., bulk.....	lb	12
Sunflower	lb	15	Phosphate, gran., pure, M. C. W.....	lb	13
Watermelon	lb	25	Phosphate, dried, powd.....	lb	24
Worm, American	lb	25	Salicylate, 1-lb box, P. W. R.....	lb	50
Worm, American, powd	lb	25	Salicylate, 1-lb box, M. C. W.....	lb	50

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Santoninate	oz	89	Powdered, 1/8-oz vials, N. Y. Q.....	oz	1 10
Succinate	oz	45	Powdered, 1-oz vials, N. Y. Q.....	oz	90
Sulphate, Glauber Salts.....	lb	3-5	STYRAX, liquid, ...	lb	60
Sulphate, Glauber Salts, bbl.....	lb	1 1/2	SUGAR, burnt	lb	25
Sulphate, dried	lb	18-20	Grape.	lb	25
Sulphite, crystals	lb	10	Milk, crystals	lb	30
Sulphite, granulated	lb	18	Milk, powd., bulk.....	lb	23
Sulphite, dry	lb	22	Milk, powd., M.C.W., 1-lb cartons.....	lb	25
Tartrate	lb	64	SULFONAL, 1-oz vials.....	oz	1 35
SOLUTIONS, Donovan's	lb	34	SULPHON-ETHYL-METHANE	oz	60
Fowler's	lb	30	SULPHON-METHANE	oz	50
Goulard's	lb	35	SULPHUR, California, ground, 110-lb bags..	lb	2
Nitrate, Iron	lb	50	Flowers	lb	5
Mercury, Nitrate	oz	20	Flowers, in bags.....	lb	2 3/4-3
Monrel's	lb	50	Iodide	oz	38
Tin, Chloride	lb	35	Lac., precip.....	lb	18
SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00	Roll, bbl.....	lb	2 3/4-5
Somatose, Ferro, 2-oz tins.....	doz	10 50	Sicily, ground.	lb	5
Somatose, 2-oz tins.....	doz	8 25	Strips	lb	15
Somatose, 1 1/4-lb tins.....	lb	5 25	Washed	lb	15
Somatose, 1 1/2-lb tins.....	lb	5 00	SUMAC.	lb	10
SOZOIODOL, Mercury	oz	1 15	SYRUP, Ginger, U. S. P.....	lb	65
Potassium	oz	75	Hydriodic Acid	lb	70
Sodium	oz	80	Iron Iodide	lb	65
Zinc	oz	1 10	Ipecac	lb	60
SPARTEINE, Sulphate, 1/8s.....	oz	83	Lactucarium	lb	1 00
Sulphate, 15-gr. vials.....	ea	12	Orange Peel	lb	65
SPERMACEIN, in cakes.....	lb	42-45	Rhubarb	lb	60
SPIRIT, Ammonia	lb	75	Rhubarb, Aromatic	lb	65
Ammonia, aromatic.	lb	85	Rhubarb and Potash.....	lb	65
Camphor	lb	75	Sarsaparilla	lb	65
Chloroform, U. S. P.....	lb	75	Sarsaparilla, comp.....	lb	65
Lavender	lb	60	Senna	lb	65
Nitre, U. S. P., 1-lb bots.....	lb	65	Senega, U. S. P.....	lb	65
Nitre, U. S. P., 4-lb bots.....	lb	58	Simple	lb	35
Nutmeg.	lb	75	Squill	lb	60
Pimento.	lb	65	Squill, comp.....	lb	60
Rosemary.	lb	65	Stillingia, comp.....	lb	60
STEARIN	lb	20	Tolu	lb	60
STONE, Pumice, select.....	lb	10	Wild Cherry	lb	60
Pumice, select, powd.....	lb	8-10	Yerba Santa comp.....	lb	65
Rotten	lb	12-15	TALCUM, powdered	lb	6-8
Rotten, powd	lb	10	Purified	lb	20-25
Soap, cut	lb	18	TAMARINDS, pound bottles.....	lb	25
Soap, powd	lb	8	Keg	ea	4 50
STRONTIUM, Bromide, cryst., M. C. W.....	oz	11	Pulp	lb	50
Carbonate, M. C. W.....	lb	34	TANNALBIN.	oz	85
Hypophosphite, M. C. W.....	oz	29	TANNIN, 1-lb cartons, incl.....	lb	85-90
Iodide, 1-oz vial, M. C. W.....	oz	30	1-oz cartons, incl.....	oz	12
Lactate	oz	16	TANNIGEN	oz	75
Muriate, M. C. W.....	lb	32	TANNOFORM	oz	22
Nitrate, pure, dried	lb	59	TANNOPINE	oz	75
Salicylate, M. C. W.....	lb	83	Veterinary	oz	25
Sulphate, M. C. W.....	lb	69	TAR, Barbadoes	lb	25
STYPTICIN	oz	6 50	Coal	gal	25
STRYCHNINE, Acetate, 1/8-oz vials, M.C.W.....	oz	1 75	Pine, bulk	gal	40
Arsenate, 1/8-oz vials, M. C. W.....	oz	1 75	Pine, 1/2-lb cans.....	doz	75
Bromide, 1/8-oz vials, M. C. W.....	oz	1 75	Pine, 1-lb cans.....	doz	90
Citrate, 1/8-oz vials, M. C. W.....	oz	1 75	Pine, 2-lb cans.....	doz	1 50
Crystals, 1/8-oz vials, M. C. W.....	oz	1 15	Pine, gal cans.....	doz	6 00
Hypophosphite, 1/8-oz vials, M. C. W.....	oz	2 00	TARTAR EMETIC, M. C. W.....	lb	50
Muriate, 1/8-oz vials, M. C. W.....	oz	1 75	TEREBENE, 1-lb bottles.	lb	79
Nitrate, 1/8-oz vials, M. C. W.....	oz	1 75	.....	oz	14
Phosphate, 1/8-oz vials, M. C. W.....	oz	1 80	TERPIN HYDRATE, cryst.	oz	9
Sulphate, 1/8-oz vials, M. C. W.....	oz	1 45	Pounds	lb	55
Sulphate, 1-oz vials, M. C. W.....	oz	1 25	TERPINOL, Liquid	oz	47
Sulphate, 1-oz vials, P. W. R.....	oz	1 25	THEOBROMINE, Alkaloid	oz	90
Crystals, 1-oz vials, N. Y. Q.....	oz	95	And Sodium Salicylate	oz	60
Crystals, in bulk, N. Y. Q.....	oz	90	THIOL, dry	oz	1 00
Powdered, in bulk, N. Y. Q.....	oz	85	Liquid.	oz	40

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THYMOL, 1-oz vials	oz	27	Rhubarb and Senna.....	lb	65
Pounds	lb	3 10	Senna	lb	65
THYROIDIN	oz	1 30	Senna, comp.....	lb	65
TIN, Chloride	lb	53	Serpentaria	lb	65
Metallic, feathered	lb	1 00	Stramonium Leaves	lb	65
Muriate, solution	lb	35	Stramonium Seed	lb	65
Oxide, white, pure	lb	99	Strophanthus	lb	1 25
TINCTURE, Aconite Leaves.....	lb	65	Tolu	lb	75
Aconite Root	lb	75	Valerian	lb	65
Aconite Root, Fleming's.....	lb	90	Valerian, ammoniated	lb	85
Aloes	lb	65	Veratrum Viride	lb	65
Aloes and Myrrh.....	lb	65	Warburg's	lb	1 75
Arnica	lb	65	TRIKRESOL, S. & G.....	lb	60
Asafoetida	lb	65	TRIMETHYLAMINE	oz	55
Belladonna	lb	65	TRIONAL	oz	1 50
Benzoin	lb	75	TRIPOLI, bulk	lb	8-12
Benzoin, comp.....	lb	75	TURPENTINE	gal	95
Blood Root	lb	65	In case	gal	90
Buchu	lb	65	Chian	oz	45
Cantharides	lb	75	Venice	lb	35
Capsicum	lb	65	URANIUM, Acetate, 1-oz vials	oz	59
Cardamom	lb	75	Chloride, 1-oz vials	oz	47
Cardamom, comp.....	lb	75	Nitrate, 1-oz vials	oz	45
Catechu, comp.....	lb	75	Sulphate, 1-oz vials	oz	47
Cinchona, comp.....	lb	75	UROTROPIN	oz	60
Cinnamon	lb	65	Tablets, 20 in box.....	box	25
Colchicum Root	lb	75	UNGUENTUM CREDE, ½-oz jars.....	oz	90
Colchicum Seed	lb	75	URETHANE	oz	54
Columbo	lb	60	VANILLIN, 1-oz vials.....	oz	75
Conium	lb	65	VERATRINE, pure, ½-oz vials.....	oz	2 40
Cubebs	lb	65	VERONAL, powd.....	oz	1 60
Digitalis	lb	65	Tablets, 10c.	ea	30
Ergot	lb	75	Tablets, 100s	ea	2 25
Ergot, ethereal	lb	80	VERDIGRIS	lb	40
Galls	lb	60	Powdered	lb	45
Gelsemium	lb	75	WATER, Cherry, Laurel.....	pt	50
Gentian	lb	60	Chlorine	lb	40
Gentian, comp.....	lb	65	Distilled.	gal	8
Ginger	lb	65	Elder Flower	lb	50
Guaiac	lb	75	Orange Flower, triple.....	lb	35
Guaiac, ammoniated	lb	75	Orange Flower	gal	2 00
Guaiac, Dewees'	lb	75	Orange Flower, Chiris, small.....	doz	2 00
Hyoscyamus	lb	65	Orange Flower, Chiris, large.....	doz	3 75
Iodine.	lb	1 40	Rose, triple	lb	40
Iodine, colorless.	lb	1 40	Rose	gal	2 00
Iodine, comp.	lb	1 40	Rose, Chiris, 6¼-gal coppers.....	gal	1 75
Iodine, Churchill's.	lb	1 75	Rosé, Chiris, small.....	doz	2 00
Ipecac	lb	80	Rose, Chiris, large.....	doz	4 00
Iron Acetate	lb	65	WAX, Bayberry	lb	45
Iron Chloride	lb	50	Bees, yellow, refined.	lb	37-40
Iron Citro-Chloride	lb	65	Bees, yellow, oz.	lb	45
Jalap	lb	65	Bees, white, extra.	lb	60
Kino	lb	75	Bees, white, No. 1.	lb	55
Lobelia	lb	60	Bowdlear's 1-lb cartons	doz	4 20
Lobelia, ethereal	lb	65	Fruit, can, red.....	lb	8
Myrrh	lb	75	Fruit, can, white	lb	8
Myrrh and Capsicum.....	lb	75	Japan	lb	18-20
Nux Vomica	lb	65	WAX, FLOOR	lb	25-38
Opium	lb	1 25	Johnson's, 1-lb cartons.....	doz	4 00
Opium, camphorated	lb	60	Johnson's, ½-lb cartons.....	doz	2 25
Opium, deodorized	lb	1 30	Johnson's, ¼-lb cartons.....	doz	1 40
Orange Peel	lb	65	WHITING, Gilders'	lb	3
Quassia	lb	60	Spanish	lb	2½
Rhatany	lb	60	WINE, Antimony	lb	65
Red Saunders	lb	65	Aromatic	lb	65
Rhubarb	lb	65	Colchicum Root	lb	75
Rhubarb, Aqueous	lb	60	Colchicum Seed	lb	65
Rhubarb, Aromatic	lb	70	Ergot	lb	1 25
Rhubarb, comp.....	lb	65	Ipecac	lb	1 25
Rhubarb, Sweet	lb	65	WOOD, Brazil, ground.....	lb	10
Rhubarb and Aloes.....	lb	65	Camwood	lb	10

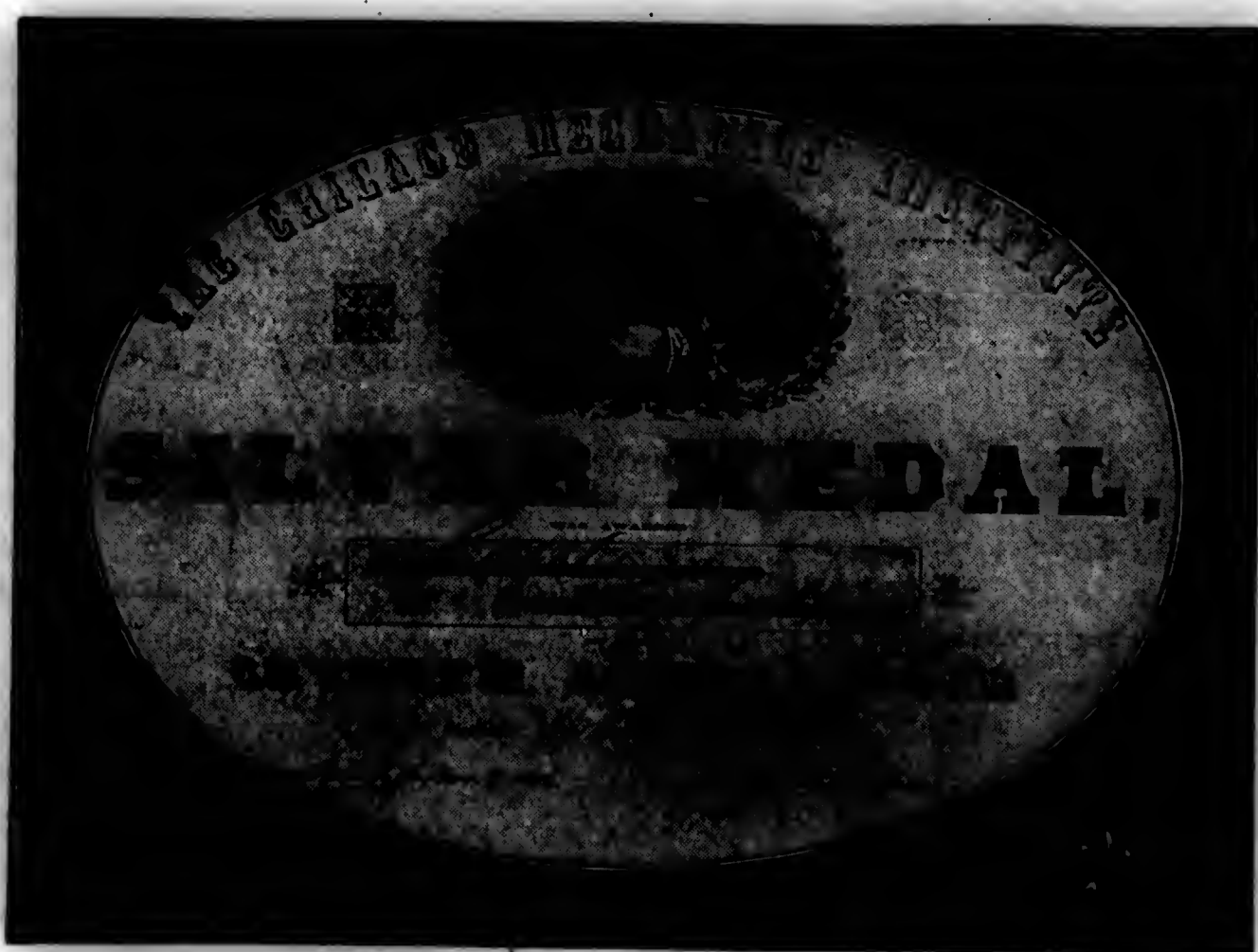
*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Fustic, cut	lb	3½-5
Fustic, ground	lb	6
Guaiaac, rasped	lb	10
Hypernic.	lb	8-10
Logwood, chip.	lb	8-10
Logwood, ground.	lb	8-10
Nic.	lb	8-10
Quassia, chip.	lb	15
Quassia, ground.	lb	18
Quassia, powdered.	lb	18
Red Sanders, ground.	lb	12
Red, cut.	lb	10
XANTHOXYLIN, Keith's	oz	13
XYLOL	lb	70
ZINC, Acetate, 1-lb bottles, M. C. W.	lb	43
Benzoate	oz	24
Benzoate, 1-oz vials, M. C. W.	oz	24
Carbolate, 1-oz vials, M. C. W.	oz	24
Carbonate, precipitate, 1-lb cartons.	lb	25
Chloride, fused, 1-oz vials	oz	13
Chloride, granulated	lb	33
Cyanide, 1-oz vials, M. C. W.	oz	21
Hypophosphite, 1-oz vials	oz	29
Iodide, 1-oz vials, M. C. W.	oz	37
Metallic, pure, feathered.	lb	27
Oxide, English, Hubbuck's.	lb	50
Oxide, pure, M.C.W.	lb	30
Permanganate	oz	52
Phosphate, M. C. W.	oz	10
Phosphide	oz	23
Sulphate, cryst.	lb	8-10
Sulphate, cryst., chemically pure, M.C.W. .lb	lb	18
Sulphide, 1-oz vials, M. C. W.	oz	16
Sulphocarbonate, M. C. W.	lb	59
Sulphocarbonate, 1-oz vials, M. C. W.	oz	11
Sulphate, H. P.	lb	15
Sulphate, dried, H. P.	lb	25
Sulphocarbonate	oz	11

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case.	\$10 00	\$2 65
Apollinaris, 50 qt bots in case.	8 50	2 25
Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 ½-gal. bots in case. .	6 00	....
Bartlett, 50 qt. bots. in case.	8 00	2 25
Bethesda, 50 qt. bots. in case.	7 50	2 25
Bethesda, 12 ½-gal. bots. in case.	5 50	....
Bythia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case. .	11 00	4 50
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case. .	8 00	2 50
Franz Joseph, 50 bots. in case.	11 00	3 00
Garrod Spa Lithia, pints.	6 00	2 00
Garrod Spa, Lithia, ½-gal. ....	....	5 00
Hathorn, 48 pt. bots. in case.	8 00	2 50
Hunyadi Janos (in case), 50 qt. bots. .	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case. .	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, ½ gallons.	9 50	6 50
Londonderry Lithia, 100 pints.	13 50	1 75
Poland, qts., 50 to case.	9 00	2 50
Rackoczy Kissengen .....	....	5 00
Red Raven Splits.	5 00	1 35
Rubinat Condal, 50 pt. bots. in case. .	14 00	3 75
Veronica .....	....	5 50
Vichy Water Celestine	10 25	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.	12 00	4 50
White Rock Splits.	9 90	1 20
White Rock, pints	11 50	1 50
White Rock, quarts.	8 85	2 25
(Cash discount 5% on case prices White Rock.)		

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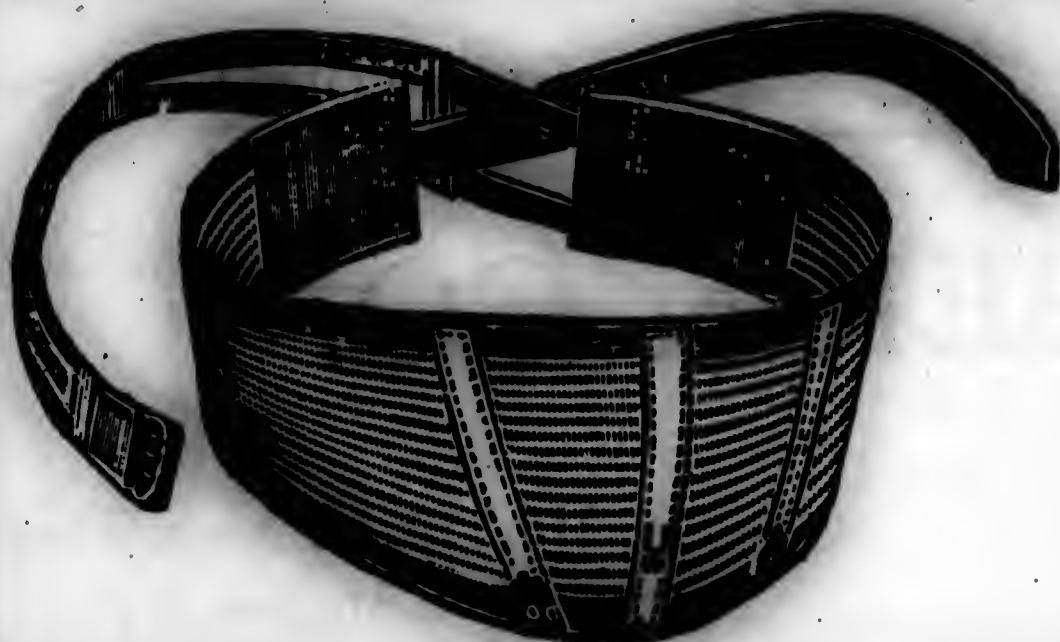
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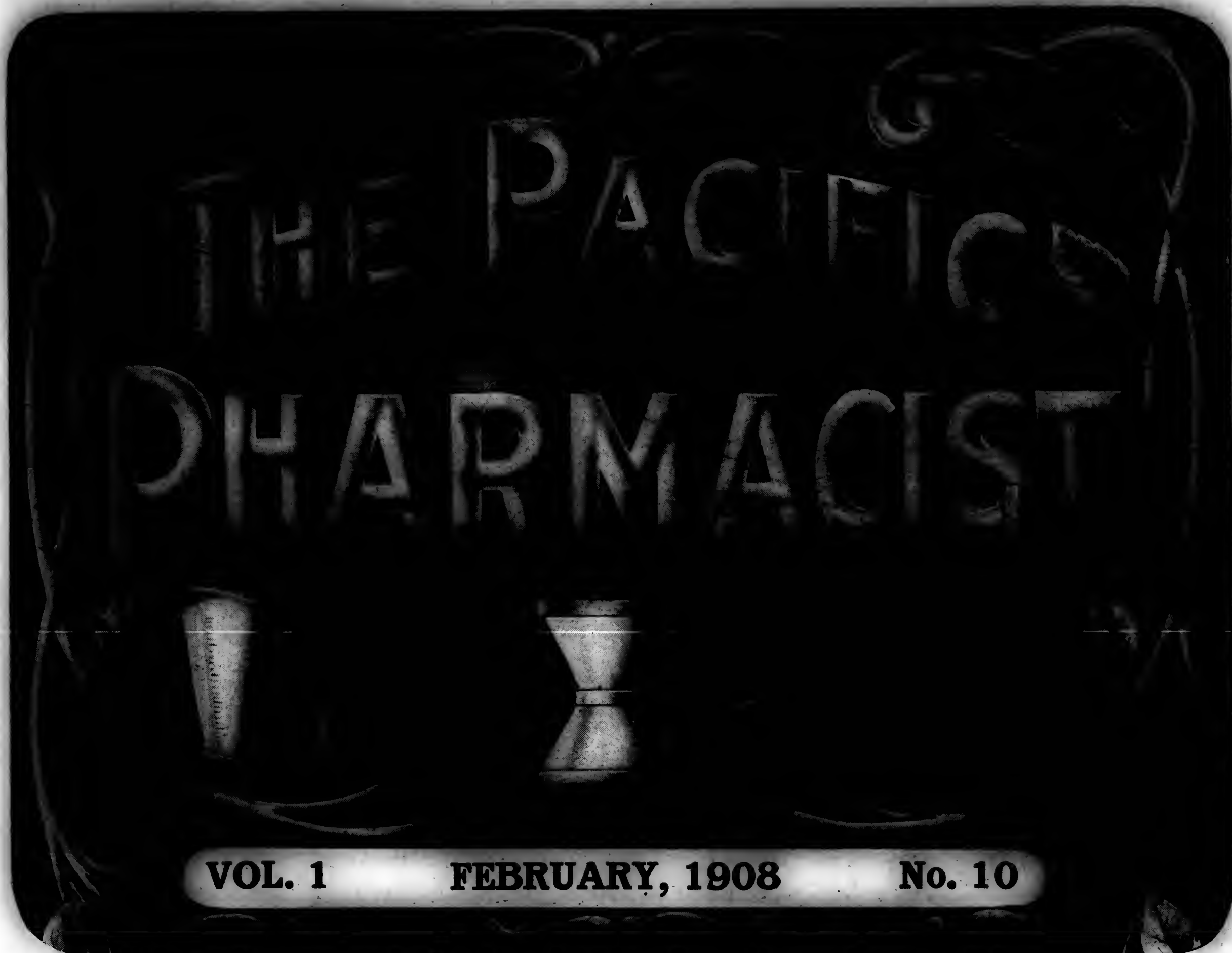
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Fellows' Syrup

Important Notice

This is to remind you that most sales of FELLOWS' SYRUP OF HYPOPHOSPHITES are made on physicians' prescriptions, in which case the profit to the retail druggist is nearly 100 per cent.

This means that the physician sends you a desirable customer; and the least you can do is to treat him fairly, and supply the preparation prescribed—Fellows' Syrup.

Members of the retail drug trade are warned against buying or selling colorable imitations of the well-known yellow-wrapped package of Fellows' Syrup. The highest courts have decided that such an act is an infringement of the Trade-mark Law, and makes the offender liable to a suit for damages.

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is that feature of every well-regulated pharmacy which should be brought to the highest degree of efficiency. "M. C. W." chemicals have long been preferred by critical dispensers, which fact we regard as being a special recognition of their high standard of excellence. No pharmacist can offer physicians better evidence as to the careful equipment of his dispensing department than to carry a full line of "M. C. W." chemicals.

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ST. LOUIS

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February is the best month in all the year to sell **ZYMOLE TROKEYS**.

Make it **YOUR** best month.

We are spending over \$50,000 advertising **ZYMOLE TROKEYS** this season—they are selling tremendously, too.

Our advertising goes all over the country, making new customers for them every day. We hope you're getting all the good out of it you can.

One way is to "**KEEP THE GOODS IN SIGHT**"—another is to use some of our advertising matter.

Ask us about some of our window display offers.

Stearns & Curtius

(INC.)
5 Platt Street NEW YORK, U. S. A.

POND'S EXTRACT

OF HAMAMELIS VIRGINICA

is the readiest of sellers (1) because as the standard for 60 years among distillates of Hamamelis, it is preferred by fastidious consumers all over the world and (2) because it is kept constantly before the medical profession and laity of the U. S. by liberal journal, magazine, newspaper and other effective advertising that makes sales for the retail drug trade.

There is always an active demand for it and, therefore, it does not stay on the shelf—

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NEW YORK AND LONDON

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THE new Pure Food and Drugs Act requires all manufacturers to sell their products under a guaranty, and a general guaranty should be filed in the office of the Secretary of Agriculture at Washington.

The following is a copy of a letter issued from the Department of Agriculture to us:

DEPARTMENT OF AGRICULTURE
Office of the Secretary
WASHINGTON

November 1, 1906.

The Antikamnia Chemical Company,
St. Louis, Mo.

Gentlemen:—

Your guarantee as to the character of the materials manufactured and sold by you, given in accordance with Circular 21 of this office, has been received, found to be in proper form and is regularly filed. The serial number attached thereto is No. 10.

Respectfully,

W. M. HAYS, Act. Sec'y.

All Antikamnia Preparations are sold under this guaranty and our Serial No. 10 appears on every package sold under the new law, thus assuring the retail drug trade of the absolute reliability of these pharmaceuticals.

The Antikamnia Chemical Co., St. Louis, Mo., U.S.A.

Cela Kut Liquid Court Plaster Is 90 Per Cent ANTISEPTIC

COLORLESS AND
WATERPROOF
PUT UP IN TUBES
SEALED

Cap and Foot with an impervious, rubber like preparation that prevents Evaporation. This adheres to the cap, and its protective qualities are not destroyed in opening the tube. Tubes are mounted on handsome scarlet and white display card.

CELA KUT IS

the best and most convenient packaged preparation of its kind. 60 cents dozen. Postal will bring sample. Your jobber or

Lee Chemical Mfg. Company

Detroit, Michigan

Guaranteed

Serial No. 2254

The "Fairchild" Products

Prescription Goods

The "Fairchild" products, like all prescription goods, help to maintain the natural relation of mutual dependence between prescriber and dispenser. The uses of these products are important and various, and many have certain activities permitting of simple demonstration which make them peculiarly interesting under investigation.

These products are offered with absolute assurance of accuracy and reliability.

Fairchild Bros. & Foster
NEW YORK

TO THE TRADE

Your customers hold you responsible for the goods you send them. They depend upon your assurance that the goods are up to the standard. Do not, therefore, jeopardize your business by handling unknown goods. Carry on your shelves only products of reputable manufacturers which have an established reputation.

ALWAYS SPECIFY

GLENN'S
SULPHUR SOAP

the original and best combination of its kind and see to it that your jobber does not substitute an inferior brand.

Diamond Dyes

Make

Permanent Customers

Every business man knows that permanent, satisfied customers are his real assets.

Every druggist who handles Diamond Dyes knows that he has no more permanent or satisfied customers than those who buy Diamond Dyes.

He also knows that lots of customers, who now buy other things, bought Diamond Dyes from him first, and came back for those other things because they were satisfied with their original purchase.

Every druggist wants to increase his real assets.

Keep up your stock and assortment of Diamond Dyes.

Recommend Diamond Dyes to Your Customers. They Will Thank You for It.

WELLS & RICHARDSON CO., - - BURLINGTON, VERMONT

THE Pacific Pharmacist

Official Organ of the California Pharmaceutical Association

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

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No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

**PLEASE NOTIFY THIS OFFICE IF YOU DO
NOT RECEIVE THE JOURNAL REGULARLY.**

Editorial Notes

PROPRIETARIES MUST CONFORM TO LAW

Elsewhere we publish reports of meetings in this city and Oakland for the purpose of formulating measures to be taken to obtain correctly labeled patent medicines. The State Board of Health, to whom is committed the execution of the California Pure Drugs Law, while disposed to be reasonable in the enforcement of the act, and not wishing to do the druggists any injustice, feel that it is their clear duty to prevent the sale of all preparations containing alcohol or narcotic drugs which are not labeled as the law requires. Druggists have been given until July 1st

to accomplish this, with an understanding, however, that at the meeting of the board, in April, they are to be advised as to the progress made, and with the further proviso that at the end of six months they are to be furnished by the committees in charge of this work with a list of the manufacturers who refuse or neglect to bring their packages into conformity with the law.

The situation is serious, and requires immediate action. A large portion of the stock of every druggist has been affected, and unless labels are changed or new packages secured, such stock will not be salable. The drug-

gists for the most part appear to be indifferent to this fact, and seem to be quietly waiting for some one else to come along and put their stock in shape. Oakland, San Francisco, and Stockton already have committees at work, and we suppose the other large cities in the State are doing the same. This should be done promptly. After July the first the Board of Health will enforce the law and those who have been expecting other people to attend to their business for them may look for trouble.

OAKLAND WINS The California Pharmaceutical Association will hold its annual meeting at Oakland, beginning Tuesday, May 19th. The Board of Trustees discussed other cities which they would like to visit, and, though they cast longing eyes in the direction of Los Angeles and the beautiful cities of the South, they finally accepted the invitation of the Oakland druggists.

The old society met in Oakland about 25 years ago, and had a fine meeting—good from the standpoint of practical pharmacy, and most enjoyable in its social features.

The Oakland druggists pull together. They are a friendly lot of fellows, and it does the rest of us good to get into the genial atmosphere which their friendliness creates. We prophesy great things for this meeting. Let everybody plan to attend, especially those who have stood out in the cold, lonesome and downhearted, these late years, and get thawed out and warmed up by rubbing against these jolly Oaklanders. It will pay to do it.

Oakland has grown since we met there last—more than doubled its population, area, and wealth. They have had good times and bad times, but still they “go on forever” in the

same old cheerful way. As far as we can see, they are no poorer than others, and enjoy life more. How do they do it? “Come and see” on May 19th.

RATS, FLEAS, AND FLIES An important meeting of the citizens of San Francisco was held on January 28th, having been summoned by the commercial bodies of the city to consider what action should be taken to assist the authorities in their efforts to completely stamp out the bubonic plague. It appears from the facts stated that while there is scarcely any plague in San Francisco at the present time, there is danger that as the dry weather comes on it may develop. Steps should be taken to prevent such a calamity. It has been said that the chief conveyors of plague are rats, and the proportion of those which are affected with plague which a month ago was $\frac{1}{2}$ of 1%, is at the present time $1\frac{1}{2}$ %.

The officers of the federal government, co-operating with the State and City Boards of Health, are bending every energy to exterminate the rats, and to remove other plague conditions. But it is essential that every householder, every occupant of a store, stable, butcher shop, or warehouse should lend his active assistance in this work of extermination. Not only should rats be killed, but also other pests, such as fleas, flies, and other insects and vermin which undoubtedly communicate disease in different ways.

Dr. Blue of the Marine Hospital, Dr. Ophuls, President of the City Board of Health, and Dr. Regensburger of the State Board of Health, spoke in favor of these measures. They were followed by our worthy Mayor, Dr. E. R. Taylor, who urged in a very forcible manner the extermination of all pests and disease-spreading vermin. “Starve them, kill them, poison them!” said the

doctor. One efficient means of starving rats and other vermin, is to make as little garbage as possible, and to have that little kept in iron cans, always carefully covered. He urged the burning in the kitchen stove of all the refuse food of families, rather than throwing it in the garbage can. If this plan was generally adopted, rats would be starved out as far as private houses are concerned. If the warehouses, butchershops, etc., were built with concrete floors they could easily be kept out of such places. Such of them as were not starved out by this method should be poisoned or otherwise exterminated.

Mayor Taylor also recommended the destruction of fleas and flies, which carry disease, flies being often covered with all kinds of filth and disease-spreading germs. We have called attention in recent issues to the danger of disseminating disease by fleas and flies. This danger should be generally recognized and guarded against.

EVERYBODY'S BUSINESS It is difficult to induce the druggists in most large cities to get together for any purpose, even one of self-protection. Many leave all matters of general interest to the other fellows, thinking that everything will be attended to, and that therefore they need not trouble themselves. Too often everybody's business is nobody's business, and affairs of serious consequence are left until it is too late. Recently a very urgent call was made upon the druggists of San Francisco to meet for the purpose of taking steps to avoid prosecutions by the State Board of Health under the Pure Drugs Law, that has just gone into effect. Less than half the drug stores in the city were represented. Where were the others? Some, of course, were un-

avoidably absent, but that could not have been the case with the 60 or 80 that failed to respond to the call. It may seem ungracious to make a comparison, but within a few months the druggists across the bay have had two gatherings, at both of which fully forty persons were present, representing nearly all the stores. As the last of these meetings was for the same purpose as the San Francisco gathering, the comparison forces itself upon the mind. The Oaklanders are better than the average. Perhaps the San Franciscans are no worse than the average, but there is much room for improvement. May we not hope for a more general response to the next call for united action?

Druggists' Profits **Drug.** 1. —Any vegetable or mineral substance used in the composition or preparation of medicines. Hence, also, any ingredients used in chemical preparations employed in the arts.

2. —That which has lost its value, and is no longer wanted; specifically, a commodity that is not salable.—Century Dictionary.

Many persons are under the impression that the profits of the drug business are very large, and that the charges made by druggists are excessive. The people who entertain this view are not themselves in that line of business. Our attention was directed to this question by a furious attack that was made upon our vocation by a newspaper article written by some one who was wholly ignorant of the facts in the case, but as similar views sometimes find expression from others who are equally ignorant, we think it may be well for our readers to view the question from a common sense standpoint, and be prepared to meet the charges that are from time to time made against us.

Basis of Profits

The profits of any business are determined largely by the cost of conducting the same. If the expenses incident to the preparation and sale of any class of merchandise are large in proportion to the amount received therefor, the percentage of profit charged must necessarily be high in order to cover these expenses; or if the amount of capital invested be large in proportion to the volume of business transacted, the proportionate profit must also be large. If it be a manufacturing enterprise, the manufactured goods must pay not only a profit on the raw material, but also the cost of labor and a profit upon that cost in order that the capital invested may be remunerative. Now, the retail drug business happens to combine within itself all these three kinds of business, the character of which is such that the profits must be large in order to be remunerative: the expenses of business are large in proportion to the volume of trade that is possible; the capital employed is also large in proportion to the volume of business; and to a considerable extent a retail pharmacy is a manufacturing concern in which the cost of labor far exceeds the value of the material. All these three causes combine to make it absolutely necessary that the profits upon drugs sold should realize a large advance upon first cost. Upon this point Henry George has put the matter so clearly that we quote his language:

"When I go to a druggist's and buy a small quantity of medicine or chemicals, I pay many times the original cost of those articles, but what I thus pay is in much larger degree wages than profit. Out of such small sales the druggist must get not only the cost of what he sells me, with other costs incidental to the business, but also payment for his services. These services consist not only in the actual exertion of giving me what I want, but in waiting there in readiness to serve me when I choose to

come. In the price of what he sells me he makes a charge for what printers call 'waiting time.' And he must manifestly not merely charge waiting time for himself, but also for the stock of many different things only occasionally called for, which he must keep on hand. He has been waiting there with his stock in anticipation of the fact that such persons as myself, in sudden need of some small quantities of drugs or chemicals, would find it cheaper to pay him many times their wholesale cost than to go farther and buy larger quantities. What I pay him, even when it is not payment for the skilled labor of compounding, is largely a payment of the same nature, as, were he not there, I might have had to make overtures to a messenger."

Expenses

It is generally conceded the expense of carrying on a retail drug business amounts to from 20% or 40% of the sales. It is seldom less than 18%, and often over 35%. Most druggists in figuring up their expenses take no account of interest on capital employed, nor of compensation for their own services. Where these are taken into account at any reasonable estimate for the latter, the expense will generally run over 30%. In conversation with a prominent dry goods merchant sometime since, a man in a very large way of business, we were surprised to find that his expenses were 15% of his sales, yet his business is of much larger volume than any retail drug store on the Pacific Coast. This gentleman has made more money in his business within the last 15 years than any pharmacist of our acquaintance. Manifestly, then, his profits cannot be less than 20%, and we understood him to say that they averaged about 25%. We do not believe that druggists average more than 35%, but if we should admit that they averaged 45%, which is a very outside figure, it is easy to see that the profit on drugs is not as great as on dry goods.

**Slow
Sellers**

If we compare the profit on drugs with those made on some other articles, the comparison is not assuring to the druggist. We remember some time ago investigating the profit on buttons. They were much larger than those made by druggists on ready-made pills, and the sales of greater volume. Patent medicines, when sold at full rates, pay druggists better than any class of goods they carry, the sales being larger in proportion to the stock carried, and the profits commensurate with the expense of handling; yet the profit on these is only about 30%. When cut prices prevail, there is no profit at all, or at most 5%. Chemicals are of such slow sale, as a rule, that if the stock kept were very large, they would ruin the proprietor, for there is no rate of profit which he could exact upon these articles that would pay their share of the expenses. Occasionally country druggists handle a large amount of chemicals, such as bluestone, acids, sulphur, etc., but it is well-known that these are always sold close; in fact, we believe that this is the case with drugs in general, wherever the sales are of any magnitude. In short, in what line of goods do the druggists charge excessive prices?

**Prescriptions
and
Horseshoeing**

It is usually considered that the prescription department is that in which the druggist coins money. Instances are given where 75 cents is charged for a lotion which has only cost the pharmacist 15 cents, or where he has charged \$1.00 for a box of pills that only cost him 20 cents. That such things do happen, no one will deny. But is the charge excessive? Let us look at another business where similar profits are made. What is the profit on horseshoes? Horseshoes cost $5\frac{1}{2}$ cents a pound in this

city, and are sometimes sold at 25 cents an ounce. This beats druggists' profits all to pieces. But let us see under what circumstances they are sold at this high figure. It is when \$5.00 is charged for shoeing a race-horse. The shoes used for this purpose weigh from 3 to 5 ounces each, that is, at most $1\frac{1}{4}$ pounds for four shoes, costing in all about 6 cents, for which \$5.00 is charged. This, however, is an exceptional case, though the common rate charged, as we were informed by one of the leading horseshoers in this city, is \$2.50 (being only a poor druggist, we do not keep a horse ourselves). The shoes used weigh from 1 to $3\frac{1}{2}$ pounds each. Those most used weigh $2\frac{1}{2}$ pounds; therefore, there are 10 pounds of iron sold for \$2.50, which is 25 cents a pound. These shoes cost \$5.50 a hundred pounds. There is a trifle more profit on these than is charged on the two prescriptions mentioned above. The shoes cost 55 cents, and are sold at a profit of nearly 500%. Now, the prescriptions we have named bear far more profit than the average that is made on prescriptions, yet they scarcely pay as well as horseshoes. What extortioners these horseshoers are!

**Arbitrary
Charges**

Sometimes people say to us, "But your prices are so arbitrary; you charge 50 cents for a four-ounce mixture, no matter what it contains, whether it cost you 5 cents or 25 cents." We admit it; but what can be more arbitrary than the charge for horseshoeing? All the shoes cost the same price, \$5.50 per hundred pounds, the big and the little. Certainly it costs the manufacturer more to make 100 pounds of shoes weighing 5 ounces each, than it does to make 100 pounds weighing $3\frac{1}{2}$ pounds each, yet he charges the same all round. There are some cases in which the charges

do not seem quite so arbitrary. The horseshoer charges \$5.00 for shoeing a race-horse, but only \$2.50 for shoeing a cart-horse. What is the reason? The race-horse is shod on the race track at additional inconvenience and loss of time to the shoer, but that is the smallest part of the concern. It is the fact that he is a race-horse and not a cart-horse, that induces the shoer to charge double rate. Why is this? Manifestly because the responsibility is so great that only a very skillful, careful, responsible man is allowed to shoe a race-horse. Under our pharmacy law, only a registered pharmacist or a registered assistant pharmacist is allowed to compound prescriptions. These are required by law to prove their competency and their reliability, and should they not have more pay for their services than an ignorant, incompetent, unreliable person?

It is true that at the present time many pharmacists and assistant pharmacists have been registered, simply because they were such before the passage of the pharmacy law, without having proved their competency before the Board of Examiners. This condition is exceptional, and unavoidable on the inauguration of a new law. It will not be many years before every pharmacist and assistant pharmacist will have to prove his competency to the satisfaction of a Board of Examiners before he will be permitted to compound prescriptions.

Cost of Labor

"But the charge for blacksmithing and horse-shoeing is largely for labor performed." So is the charge for prescriptions and medicines. Pharmacists owe it to themselves to educate the public to this view of the case, until it is realized as clearly as it is in the case of the blacksmith.

"But druggists charge such high

prices on goods which they simply buy and sell. It costs no more to sell a pound of Epsom salts or an ounce of laudanum than it does to sell a pound of salt or a quart of molasses." This is not quite true, because of the precautions required in the sale of the latter. But if we admit it for the sake of argument, any one can see that the cases are not parallel. The grocer deals in commodities that are harmless, and should the wrong articles be supplied, no injury to life or health results. But the druggist deals mainly with goods of a dangerous nature, and if he should deliver sulphate of zinc when Epsom salts is called for (and the two cannot be distinguished by the eye), a human life is jeopardized. It is a common thing for people to call for articles in a drug store by wrong names, and the druggist, by an instinct which is the result of long training, commonly detects the error, thereby in many cases saving life or preventing serious damage in some way. This constant vigilance, this habitual caution, this superior knowledge of the nature and properties of the goods he handles, this watchful oversight, which is a part of the druggist's very being, is of the greatest value to his customers, and can only be compensated for by a liberal profit on the goods dispensed.

The connection between responsibility and compensation is well understood. Many responsible occupations command handsome salaries where the

labor connected with them is small. The salaries attached to some of

our positions of public trust are graded rather upon the responsibility connected with them, than upon the amount of work to be done. The same remark applies to almost all positions of trust; but when, as in the case of bank managers, consulting en-

gineers, architects, physicians and others, we have responsibility combined with valuable services, then the compensation is munificent. In the general conduct of a retail drug business, as well as in the dispensing of prescriptions, both of these elements must be taken into account. There are grave responsibilities, and no small amount of skill required. Hence, the compensation should be great. As compared with other vocations where there is equal skill and responsibility, the remuneration of pharmacists is entirely inadequate to the services performed.

Summary From what has been said above, we think it will be readily seen that the profits of the drug business as a whole, and the charges made by druggists for their goods, are not commensurate with the services rendered by them to the community:

First—Because they are required to keep on hand a class of goods of proverbially slow sale. This is a great convenience to the purchaser, and he should be willing to pay a trifle beyond an ordinary mercantile profit for such accommodation.

Second—Because by reason of these slow sales, and the small quantities usually bought by purchasers, the percentage of expense in effecting sales is higher than in most other businesses. This unusual expense should be added to the first cost of the goods in order to form a correct estimate of the profit made.

Third—Because druggists are required to devote considerable time and money in obtaining a knowledge of the goods they sell, and in acquiring skill to manufacture and dispense them. Their knowledge of these things has a value to the purchaser.

Fourth—Because the medicines which they compound require care, knowledge, and skill in their preparation, and such care, knowledge, and skill should be paid for by the person benefitted thereby, that is, the purchaser.

Fifth—Because their sales consist largely of goods the dispensing of which is connected with great responsibility.

FRUIT PRESERVATIVES The opposition on the part of our fruit-growers, packers, and merchants to the arbitrary rulings of the Department of Agriculture (F. I. D. 76) on the use of sulphur in fruits, has been so vigorous that President Roosevelt has requested five universities to send names of persons recommended as expert chemists to test the matter, with a view to modifying the rulings of the Department so as, if possible, to meet the views of the Californians interested. The chemists whom the President may select will also be called upon to investigate the efficacy of sodium borate in certain cases, and will probably be authorized to report upon any feasible method of preserving these products. If this step had been taken before Professor Wiley issued his former dictum, much loss to California would have been prevented. Dr. Wiley has suggested treatment with sodium chloride as a substitute for sulphuring, but Professor E. J. Wickson, director of the United States experiment station at the University of California says that this was tried fifteen years ago and found unsatisfactory. Professor Wickson ought to know, for he has been studying such matters for a generation or more, and is one of the best-known authorities on all matters connected with horticulture.

THE CUBAN PHARMACY DIFFICULTY On page 504 we publish a statement by the Cuban pharmacists of their grievance against Provisional Governor Magoon which will interest our readers. It seems strange that, just as the most advanced States in America are limiting the practice of pharmacy to persons who have received a good education and systematic instruction in a college of pharmacy, Governor Magoon should throw down the bars in Cuba so that persons with almost no preliminary education and no pharmaceutical can present themselves for examination for licensure, such examination being in no sense equivalent to that exacted of the regular graduated pharmacists, who alone had the right to conduct pharmacies under the Cuban law. That that law had been grossly violated is admitted by all parties. Why, then, did not the Governor insist on its enforcement, instead of lowering the qualifications of pharmacists? If that was not practicable, why not insist on the "practicos" having a reasonably liberal education and passing an examination that would give proof of qualifications approaching those demanded by the law?

CONFISCATION In a discussion over the execution of the State Pure Drugs Law, the question was raised whether the Board of Health had the right to seize any articles not labeled according to law. Section 9 says, "any agent of the board or sheriff shall have the right to purchase at the place of business of any manufacturer or dealer, any drug suspected of being adulterated, mislabeled or misbranded within the meaning of this act, tendering the market price of said articles. If a sale be refused, he may take from any person, firm or corporation samples of any articles sus-

pected of being adulterated, mislabeled or misbranded."

In such a case, if the goods are taken without being paid for, it will be the druggist's own fault.

What will be done with all those patents, etc., put up before the law was enacted by persons who are dead, out of business, or from other causes cannot be found? These goods cannot be labeled so as to comply with the law. Will the Board of Health confiscate them? Have they the power to do this? Such a proceeding would be making the Pure Drugs Law retroactive. Can this be done?

THOSE LABELS AGAIN

Many Preparations Not Labeled According to Law

In a discussion over the correct labeling of galenicals and proprietaries at a recent meeting of druggists in this city, it transpired that some persons are labeling headache powders, cough medicines, etc., so as to express the amount in each dose or powder. **This is not according to law.**

To settle this question definitely, we addressed the following letter to Dr. W. H. Wiley, of the Department of Agriculture. His reply is given below.

Office of Pacific Pharmacist,

San Francisco, Jan. 22, 1908.

Honorable James Wilson,
Secretary of Agriculture,
Washington, D. C.,

Dear Sir: A number of pharmacists here are in doubt as to the manner in which they should label articles containing preparations of opium, acetanilide, etc., and I am unable to find a specific ruling in any of the Food Inspection Decisions, which I have received. In F. M. D., No. 63, referring to the printing of formulas, it is stated near the end, "The Ounce Shall Be the Unit." Does that mean in every case? For instance: A gentleman puts up

headache powders which contain $2\frac{1}{2}$ grains of acetanilide in each powder. Must he say that they contain so much acetanilide in the ounce, or is it sufficient to give the quantity in each powder? Another prepares a cough mixture which contains a $\frac{1}{64}$ of a grain of morphine to the teaspoonful. Is it sufficient that he label it so as to show the amount in each dose, namely, a teaspoonful, or must he show the amount in each fluid ounce?

I am, sir,

Yours very respectfully,

W. M. SEARBY,

Editor **Pacific Pharmacist**, and President California Pharmaceutical Association.

January 29, 1908.

Mr. W. M. Searby,
410 Kearny Street,
San Francisco, Cal.,

Dear Sir: In reply to your favor of January 22d, we desire to state that, in accordance with the Regulation 30, all ingredients of medical products, except alcohol, should be stated upon the label in grains, or minims, to the ounce or fluid-ounce. An illustration of the manner in which morphine should be declared, is given in Food Inspection Decision 52, a copy of which we enclose. * * *

Respectfully,

H. W. WILEY,

Chairman.

Food Inspection Decision 52 was published in the **Pacific Pharmacist** for August, 1907, page 201, with a form of label illustrating the manner of expressing the quantity.

It is clear, therefore, that headache powders labeled to show how much acetphenitidin, for instance, is in each, do not comply with the national law as interpreted by the Department of Agriculture, and their regulations and definitions are made a part of our State law (Section 3).

INTERPRETATION OF THE STATE POISON AND PURE DRUGS LAW

The following correspondence is self-explanatory. The answers given are to be understood as indicating the attitude of the Board of Pharmacy on these points, rather than as a strict or literal interpretation of the law. In other words, the board does not intend to institute prosecutions where no harm is likely to result, or where there is clear evidence of an honest effort to comply with the law.

San Francisco, Jan. 28, 1908.

Chas. B. Wilden, Esq.,

Sec'y State Board of Pharmacy.

Dear Sir:

At a meeting of the druggists of San Francisco a few days ago, the question arose whether cough mixtures, liniments, etc., containing opium, morphine, heroin, codeine, etc., could be sold if the quantity of the poisonous alkaloid was stated on the label. Three views were presented as interpretations of the laws, viz:

1. That any amount could be put in, if the quantity or proportion was stated and the article registered as a poison where the sale covered a poisonous quantity of the drug.

2. That in the case of opium, its preparations and derivatives, any amount not exceeding two grains of opium (or the alkaloid equivalent thereof) could be put in, but not more, without a physician's prescription.

3. That none of these things could be put into a cough mixture, etc., without a prescription.

Which of these is correct? If all are wrong, what is the law in such cases, as understood by the State Board?

Kindly, also, answer the following questions:

4. Can lapactic pills (containing atropine, a poisonous drug) and strychnine (mentioned in Schedule A

of the Poison Law) be sold without a physician's prescription?

5. Can A. B. & S. pills be sold without a prescription?

6. Must they be marked "poison"?

7. Must they be registered?

I ask these questions for the information of druggists, who seem to be "at sea" about the Poison Law.

Yours truly,

W. M. SEARBY,
Editor **Pacific Pharmacist**.

ANSWERS

Question No. 1. No.

Question No. 2. Section 8 prohibits the sale of "morphine, codeine, heroin, opium and cocaine, their salts, compounds or preparations, excepting on the prescription of a regularly licensed physician, dentist or veterinary surgeon and excepting preparations containing less than two grains of opium to the fluid ounce." On the other hand, the sale of any preparation or combination that may possibly develop, or can be used to satisfy a craving for the aforesaid habit-forming drugs is strictly prohibited, as for example, laudanum and oil (earache), solution of cocaine (toothache), antikamnia and codeine tablets, Dover's powder, etc.

Question No. 3. Incorrect.

Question No. 4. Yes.

Question No. 5. Yes.

Question No. 6. No.

Question No. 7. No.

A good sign, showing the growth of good feeling and the strengthening of professional courtesy, was given last month when a dinner was tendered in New York to Professor Joseph Price Remington by the officers, faculty, and trustees of the College of Pharmacy of Columbia University. We congratulate both colleges represented—Philadelphia and New York—on this pleasing episode.

BUSINESS SIDE OF PHARMACY

The course of lectures on this topic at the California College of Pharmacy is being enjoyed and appreciated by the students. The first, which was introductory, was delivered January 14 by Professor W. M. Searby, on "Pharmacy as a Profession and as a Business." Beginning with a definition of pharmacy as an art, rather than a profession, attention was called to the compensations of trade as based upon other considerations than those which pertain to an art or profession. The druggist who deals in merchandise of various sorts should buy and sell those particular articles as other dealers do, exacting the same profits, and no more. A bottle of perfume, a tooth brush or a chamois skin is worth no more to the consumer because he buys it of a druggist. Epsom salt, castor oil, seidlitz powders, rochelle salt, compound licorice powder are worth more to the consumer because the pharmacist is more careful than the average dealer about the quality of his goods, and knows more about them. His practiced eye, and other senses, quickly recognize anything wrong with them, and if reliable information concerning them, or the best way to use them, is wanted, he is prepared to give it. The class was cautioned against overcharging for miscellaneous merchandise, and undercharging for drugs, pharmaceuticals, and prescriptions. On this latter point he enlarged, in line with our editorial in this issue, on "Druggists' Profits."

By overcharging, the druggist may drive trade away from his store; by undercharging he deprives himself of a just compensation. The cost of his own and his clerk's time was shown as an item that is easily ascertained, but, from bad business ideas, is often overlooked. No carpenter, plumber, or

electrician works without pay. So much lumber, pipe, wire, etc., is charged, not at cost, but at the very highest selling price. To this is added the labor, estimated from the time the workman leaves the shop until he is back again, and on the top of all this the boss adds his profit. Applying this principle to prescriptions, it is seen that some of them are put up at a loss.

The ethics of pharmacy were always discussed. As a professional man the pharmacist is under obligations more exacting than those which prevail among non-professional men. Ethics has been defined as the science of right character and conduct. How does this apply to the relations of the pharmacist, to other pharmacists, to physicians, and to the public? Substitution and imitation of a neighboring pharmacist's preparations were considered, and counter-prescribing and paying commissions to physicians deprecated. Absolute truthfulness in regard to labels and all other representations made in selling goods was also insisted upon.

The second lecture was given by Mr. Valentine Schmidt. His topic was "The Fitting Up of a Drug Store." He spoke of the amount of money to be invested in fixtures, showcases, etc., other than merchandise, cautioning his hearers against being too lavish in spending money in the conveniences, etc., of business, but urged attention to the right proportions of the details of these things. He believes the drug store should have a public telephone, but questions the wisdom of keeping a soda fountain in San Francisco. He gave dimensions and figures of cost, and laid much emphasis on having things so that they can always be kept bright and clean.

Drawers should be of various sizes, for different purposes, the labels being movable, so that they can be changed if necessary. A strip of zinc, painted black and bearing a gold label is convenient, neat, attractive and not costly. Drawer-pulls should be dispensed with. A small space under the front of the drawers gouged out for three or four inches meets every requirement of convenience, and leaves nothing to catch the pockets or clothing.

"Silent Salesman" should not be too large, about 4 feet high and 22 inches wide. They should be constantly watched, kept free from dust, and always tidy—sufficiently filled, but not crowded. In his new store he has drawers underneath the back, and in these are kept surplus stock of the goods shown in the case. As an article is sold its place is filled by another the first opportunity after the sale.

The lighting of the store is an important item. Gas for the main store (chandeliers with Welsbach burners), and electricity for the windows.

Colors in the store should harmonize. The floor should always be clean, the bottles bright, everything to create a pleasing impression on entering—an impression that it is a pharmacy, and not a bazaar with a drug store annex.

The caution was given not to spend twice as much as they have money to pay for. The differences to be observed between a country and city store were noted.

The desirability of having a telephone closet, rubber room, ladies' room, etc., was considered. Details in relation to label drawers, perfume cases, and other conveniences were discussed. In his next lecture Mr. Schmidt will consider the prescription department and its management.

The third lecture was given January

29th by Mr. Robert A. Leet, Ph. G., of Bowman & Co., Oakland. Assuming that most of his hearers would be clerks before they became proprietors, he advised them not to be in a hurry to go into business. They should see how business is conducted in two or three other good stores before they essayed to assume the responsibility of owning a store. A few years' service as a clerk teaches a man how he should treat his clerks when he becomes an employer. There should be confidence and frankness between them. The employer recognizes the right of an employee to better himself, but should the latter desire to change his position, he should give his employer a reasonable time to fill his place. In like manner the employer should give his clerk reasonable notice, if from any cause his services are no longer needed. In the long run both gain by this mutual confidence. Secrecy and underhand work on either side does not pay in the end. Furthermore, it is right to do as we would be done by.

The lecturer spoke of the value of a pleasing address in waiting on customers. "A smile is worth a lot of money." It makes friends, and brings people back to the store another time. "Scientific salesmanship" is all right, but a good salesman should have absolute knowledge of the thing he sells. Don't bluff. Learn all you can about the goods you deal in. Know the difference between a sheep's-wool, Mediterranean, and grass sponge. Don't try to sell a stableman a Turkey sponge, telling him that it will wear longer, do better work, etc., than a sheep's-wool. You know it won't.

In regard to the general work of the store, be ready to do anything. If, while you are waiting for customers, you see some dust lying on the cases, etc., don't let it remain there because it

is not your work to clean up the store, but wipe it off and keep the store always looking clean and tidy.

Get acquainted with your banker. Let him know your circumstances; what you are doing and what you want to do; and if you are entitled to credit, you will get it. Don't be under obligations to your jobbing houses. Pay them promptly, even if you have to borrow the money to do it. Encourage the public to get acquainted with you and your mode of doing business. Don't have one price for one customer and another for another. That method of doing business is obsolete—people won't stand for it now-a-days.

Avoid duplicating your stock. Have a place for everything and keep everything in its place. A good plan is to divide the store, store room, laboratory, etc., into sections A, B, C, D, etc., and number the shelves, etc., and having arranged everything neatly, make a key or index book. If an unusual thing is called for, and you don't know just where to look for it, your index book will tell you in a few seconds. If it is not there it is not in stock. Your customer is pleased that you say promptly whether you have it or not, and soon learns that there is system in your store and that is the sort of a place that he likes to trade in. System will talk.

If you are a clerk, and going into a store, see some things that ought to be improved, make suggestions to the owner, or if you have bought out a store and see where you can improve upon the methods that have been in vogue, put your ideas into practice. Avoid humdrum ways, especially in a store that you own. Keep looking out for possible improvements.

Have a policy in your business. If you expect the patronage of physicians, and to do a nice family trade,

taboo completely those remedies that are even suggestive of abortion and all such things. Don't sell things you ought to be ashamed of, much less recommend them. Flaming advertisements, which are mostly false, such as "Diabetes can be cured!" and all such appeals to ignorance, should not be tolerated in the store, certainly not displayed. Don't have your name connected in the daily papers or in any other way with a patent medicine whose proprietor offers you a bonus for the use of it. You can't have your name paraded before the public in that way and have the respect of the most intelligent people, nor the patronage of physicians.

Mr. Leet's next lecture will treat of "The Buying, Pricing and Selling of Goods."

ARRESTS UNDER THE PHARMACY LAW

Some druggists fail to realize that the State Pharmacy Law is of any benefit to them. On the contrary, they regard it as an interference with their business, and therefore a nuisance. This is a mistaken idea. All such laws are primarily for the protection of the public from such evils as result from ignorance and incompetence, but incidentally they are beneficial to pharmacists by limiting the competition of their trade to such persons as can prove a reasonable degree of fitness for the business. Druggists, therefore, ought to welcome the visits of the officers of the Board of Pharmacy, and sustain them in their efforts to enforce the law against those who are violating it.

We make these remarks because opposition to the Board is sometimes developed in quarters where coöperation might be expected. There is a certain degree of suspicion entertained that

the Board wants to trap druggists, and with this feeling in mind, every obstacle is sometimes placed in the way of the officers of the law. This is not only discourteous, but also unwise. Section 7, subdivision I (f) gives the Board power "to employ inspectors of pharmacy and to inspect during business hours all pharmacies, dispensaries, stores or places in which drugs, medicines and poisons are compounded, dispensed or retailed, and to cause the prosecution of all persons whenever there appears to the Board to be a reasonable ground for such action."

Section 17 requires pharmacists to give information to the officer of the Board when it is sought. "Any person refusing to furnish the information, or wilfully furnishing information that is false or untrue, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished." * * *

Recently a druggist was arrested at Point Richmond, Contra Costa County, charged with violating the law governing the sale of poisons, and the next day the town paper came out in flaming headlines, "Druggist Held for Violating the Poison Law." Naturally this is irritating to the party concerned, as it injures his business. His version of the affair is that "when the deputy came in and produced his card we treated him with every courtesy. We answered his questions promptly and granted him every latitude within reason toward the carrying out of his official duty. We allowed him to 'inspect' our poison register, and objected to his purloining it." Nevertheless, "while waiting on a customer, he went away with the book." When it was afterwards demanded of him he refused to return it. The book, however, was recovered and the agent then went back to the store, accompanied by a policeman, made a further

examination of the book and demanded to see the prescription file. This was refused, and the druggist was arrested for refusing. This incident is much to be regretted. There was considerable ill-temper on both sides, and the whole proceeding was undignified. There is nothing in the law to justify the inspector in taking the poison register. The magistrate could doubtless order it produced in court, but no business man likes to have his books of any kind taken out of his possession by an informer. Whether the latter had a right under the law to examine the druggist's prescription file in search of evidence against him, is a legal point we do not care to pass upon. It would have been far better had the officer obtained an order from the court to produce both the file and the register, but taking such things by force or subtlety, is not to be tolerated. Whether the poison law was violated or not, we do not know, but the courtesy due a reputable pharmacist was violated by the taking away of his poison register. Such acts are not necessary to the strict enforcement of the law. If information which the officer required in the discharge of his duty was withheld, he should have had the parties arrested for withholding it. (See section 17.) The court would have saved him any altercation over the possession of documents which were presumed to furnish evidence favoring the prosecution.

It is due to the Board of Pharmacy to say that the trouble in this case was brought about, not by themselves, but by a subordinate. In his zeal to secure a conviction he exceeded his authority. Probably nothing of the kind will ever occur again. The Board needs the good-will of druggists, and the latter should help the Board to enforce the law. It is best for both to work in harmony. Antagonism injures both.

DRUGGISTS AROUND THE BAY WAKE UP

An important meeting of the druggists of San Francisco was held in Goodman's Hall on Friday evening, January 17th, to consider what steps should be taken to avoid prosecution by the State Board of Health, to whom has been committed the execution of the State Pure Drugs Law. A meeting had been held in Oakland about a week before, at the instance of A. L. Leber and R. A. Leet, who had been to Sacramento to interview Dr. Forster on this subject. These gentlemen had learned that it was the intention of the State Board of Health to enforce the law rigorously, especially with regard to patent medicines, and had made arrangements to send inspectors to visit the different drug stores in the State to examine their stocks of these goods. Any that are not correctly labeled, giving the percentages or proportion or quantity of alcohol, morphine, cocaine, etc., are to be taken from the stores by the inspectors, and if found to contain any of these articles, the sellers will be arrested and prosecuted for violation of the law. If they are properly labeled, or if they bear a statement from the manufacturer to the effect that the law has been complied with, the dealers will be let alone.

The druggists of Oakland, Alameda and Berkeley have made arrangements to examine their stocks of these goods and to send to a committee an alphabetical list of all these medicines which they have in stock that are not properly labeled and the committee will tabulate these lists and communicate with the proprietors, asking them to either exchange the goods for such as are correctly labeled, or to furnish new labels and wrappers, or stickers, certifying that the law has been complied with. These will be distributed

by the committee to the several druggists, who will at once take the necessary steps to put their stocks in order.

After a full discussion it was arranged by the San Francisco druggists that they would take the same course of action, and a committee was appointed to carry out this resolution. The committee consists of K. B. Bowerman, T. A. Donlan, L. Eschmann, Felix Lengfeld and E. L. Baldwin. This committee will promptly have blanks printed and sent to such druggists in San Francisco as have made a deposit of \$5 towards the expenses of the work. On receiving these lists from the different druggists they will tabulate them, communicate with the proprietors, and make arrangements for supplying the druggists with properly labeled goods or with labels which they can themselves affix.

During the meeting, which was presided over by Professor Frank T. Green, President of the Bay Counties Retail Druggists' Association, the various points of the State law were discussed and the necessity of labeling other goods than patents so as to comply therewith. Attention was called to the fact that all official preparations, as well as non-official that contain alcohol must have the percentage stated upon the label. The difficulties of making an exact statement were shown, especially in the case of such preparations as sweet spirit of nitre, tincture of arnica, etc., which are prone to change after they have been made up, or in the making of which there is considerable loss of alcohol through evaporation and other causes. In regard to preparations of unknown composition, not of the pharmacist's own manufacture, but known to contain alcohol, it was suggested that a sticker might be used, something like the following: "This preparation contains alcohol not exceeding 90%."

Attention was called to the fact that true statements must always be made on the labels of all medicines, especially with regard to their composition and curative properties. As a rule, it is best not to claim that a preparation will "cure" anything, though it may prevent or relieve any ailment or otherwise benefit the user. The composition of insecticides or toilet articles need not be given, as they are neither foods nor medicines, but cures for pimples and freckles must comply with the Pure Drugs Law.

Professor Green cautioned those present on the following points:

1. To have a poison register, and be careful to use it whenever poisons are sold.
2. To have the purchaser sign the register.
3. To see that poisons are labeled according to law, in red ink on white paper, or white on a red ground, and bearing the official antidote, that is, the antidote named by the State Board of Pharmacy.
4. To see that the percentage of alcohol is correctly stated on all labels.
5. To avoid the use of beer bottles, sauce bottles, or other containers which ordinarily are used for articles of food or drink.
6. Not to use bottles with names other than their own blown in them.
7. That tablets of antikamnia and codeine or other compound tablets containing codeine, morphine, etc., even in small quantity, cannot be sold except on physicians' prescriptions.*
8. That pills and tablets of strychnine, atropine, and other poisonous alkaloids come within the provisions of the poison law.*

Mr. H. R. Wiley, lecturer on pharmaceutical jurisprudence in the California College of Pharmacy, spoke of

* See correspondence, page 497.

the legal aspect of the question, and stated that the Pure Drugs Law had come to stay. It is the result of a long-felt want. The law has the earmarks of permanence, and it is best to get in line with it, for it is not the result of a sudden impulse of public sentiment.

Dr. Felix Lengfeld said that while we favor the law, we do not want to be made the victims of vindictive prosecutions. He thought it doubtful whether the Board of Health had the power to confiscate goods which they may think do not comply with the law, and he could see the possibility of such a difference of opinion on this point as might require a decision by a court of law to determine. No one pharmacist should be called upon to test doubtful points in the law. All should unite, if such a course should become necessary, or if goods were seized without due process of law.

A committee of five was appointed to watch the legal points of the case. The committee was as follows: W. M. Searby, H. R. Wiley, A. Haman, T. A. Rees and C. E. Fuller.

It was stated that the Board of Health had agreed with Messrs. Leber and Leet to allow three months in which druggists would have the opportunity to get their patent medicines made to comply with the law. After that time they would prosecute persons found with "misbranded" drugs and medicines in their stores.

Before the meeting adjourned Mr. E. L. Baldwin, noticing that a large number of druggists were present, obtained permission to call the attention of the meeting to the fact that the San Francisco Drug Exchange, which transacted some business several years ago, had a sum of money on hand which the directors were anxious to distribute among the stockholders. The records of the company had been lost in the fire, and those present who were stock-

holders were requested to give their names to the secretary in order that a meeting might be called at an early date to consider the desirability of distributing the money on hand among those to whom it belonged. A number of names were handed in, and a resolution was passed authorizing the secretary to call a meeting by public advertisement. The meeting then adjourned.

CUBAN PHARMACISTS PROTEST

The pharmacists of Cuba have been greatly disturbed by the action of Provisional Governor Magoon, in permitting pharmacists to take their examinations for registration as practitioners of pharmacy after five years' experience, without demanding of them any preparatory education. The protest by pharmacists was cabled to President Roosevelt, and the co-operation of the American Pharmaceutical Association, through its president and officers, was invoked. At the same time the students of the University of Havana and the Provincial School ceased attending their classes, and telegraphed to students in other parts of Cuba to do the same. They threaten to absent themselves from college until Governor Magoon rescinds the decree which has given the offense. Evidently the decree has created quite a commotion, as the students in law, medicine, and engineering have "struck" out of sympathy with the pharmacy students.

The following preamble, with article I, will suffice to show the cause of the dissatisfaction:

"Whereas, complaints are frequently made that the provisional pharmaceutical regulations are not complied with as regards the constant presence in drug stores of the titular owners thereof; and

"Whereas, the actual owners and

administrators of many drug stores are not in possession of academic diplomas as doctors or graduates of pharmacy; and,

"Whereas, said actual owners are in many cases desirous to give evidence of their competence to dispense and compound drugs by an examination in order that a license may be issued to them so as to enable them to comply with the provisions of the law; and;

"Whereas, it is necessary for the public safety that the compounding of drugs and filling of prescriptions be done only under competent supervision:

"Therefore, I, Charles E. Magoon, by virtue of the power vested in me as Provisional Governor of Cuba, resolve:

"Article I—That persons who at the time of publication of this decree are engaged in the practice of pharmacy, without being graduates or doctors of pharmacy duly authorized to practice, and who have had five or more years' experience therein, and are twenty-five or more years of age, are hereby authorized to practice the profession of pharmacy after having successfully demonstrated their competence to do so before a Board of Examiners formed as hereinafter provided."

The decree goes on to recite how the examination should be conducted, and provides for the issuance of certificates, payment of fees, and other matters for the carrying out of the regulations. The persons who constitute the Board of Examiners are all named, \$5,000.00 are appropriated for the carrying out of the decree, and the acting Secretary of Public Instruction and the acting Secretary of the Hacienda are charged with the execution of the decree. The protestants have presented their cause to Governor Magoon, and have sent two delegates to Washington to interview the War

Department, and probably the President, with a view of inducing him to direct the Governor to withdraw and modify the decree.

It is clear from the above facts that Governor Magoon has created quite a disturbance among the pharmacists of Cuba.

How the Trouble Began

It appears that the practice of pharmacy in Cuba is regulated by an old Spanish law, and by an order of the Military Government. The Spanish law prohibited any person not a graduate of a recognized College of Pharmacy from owning a store or filling prescriptions. But if the owner died his widow or heirs were allowed to conduct the business by employing a registered pharmacist, provided the ownership of the store was placed in the pharmacist and such ownership recorded. These pharmacists were called "regentes." In course of time this practice was extended to any one who desired to engage in the drug business.

Clerks who were deemed competent to prepare medicines and prescriptions, but could not be registered as pharmacists because they had not been graduated by a College of Pharmacy, were called "practicos." If one of them was able to purchase a stock of drugs, he set up in business, acquiring the right to conduct a pharmacy by buying from a registered pharmacist the right to use his name, the store being registered in the latter's name, and the registered pharmacist then became a "regente," though he had nothing to do with the store except to receive his \$50.00 or \$100.00 a month for the use of his name. Many regentes live in Havana, though the stores carried on in their names are in distant parts of the island. There are about 60 such stores in Havana, and

about 300 in Cuba, none or scarcely any, of the regentes attending to them. Some of these regentes sell their names to a number of stores.

This state of affairs called loudly for reform. The proper thing to do would have been to permit anyone to own a drug store, but to prohibit anyone not a registered pharmacist from filling prescriptions, and otherwise practicing pharmacy. Governor Magoon suggested this, but it was objected to by both regentes and practicos. The practicos, many of whom were in small towns, wanted special permits issued to them on their showing that they had for five years been actually engaged in the compounding of prescriptions. The University authorities, rather than have these permits granted on a simple proof of five years' experience, very properly suggested that these practicos be examined. This was just what the Governor wanted, but the University wanted the examiners appointed from their faculty, which was objected to by the practicos. Finally, a Board of Examiners was agreed upon and the method of conducting the examinations. But the regentes "saw their finish" in this new order of things, and incited the faculty and students of the University to make a formal and vigorous protest to the Governor and also to President Roosevelt. And now a delegation is on the way to Washington, where the controversy will be resumed.

The facts are as follows:

Our law regarding pharmacy, provides (Art. 9), that "Pharmacists shall personally direct all the operations in their places of business and shall themselves prepare or shall have prepared under their immediate inspection, all the medicines that can be sold without a medical prescription and also the medical prescriptions that come to their drug stores."

Art. 2 of the same law, says:

"The compounding and sale of medicines

belong **exclusively** to the graduated pharmacists with diploma, authorized to practice their profession." And although by this article only pharmacists may do business in their drug stores, Art. 20 provides that

"Widows and minor children of deceased pharmacists may continue to do business in their stores, provided they are conducted by graduated pharmacists." And these pharmacists (which in this case only are called "Regentes," which in the United States means "the persons who carry on drug stores as managers) are by Art. 22, under the same obligation as pharmacist proprietors.

As it happens in all countries, after a successful Revolution, and before the same are settled, the laws are infringed by those whose interest it is to do so. Governor Magoon has discovered that many owners of drug stores are not themselves registered pharmacists, but have same under the nominal charge of a pharmacist graduate who often lives in a different town from the one in which the drug store is located.

This difficulty, so easy to solve by enforcing the law and compelling the nominal pharmacists to conduct really and personally their business, has been settled by Governor Magoon in a very curious and circuitous way, **suppressing the graduated pharmacist**, and authorizing the no-pharmacist-owner to continue his business if he only successfully passes an examination so superficial and empirical that its passing does not prove competence of any kind, as will be seen by reading the following cutting (taken from the Official Gazette):

That Article 2, Decree No. 1320, dated December 31, 1907, and published in the Official Gazette on January 2, 1908, is amended to read as follows:

"Article 2.—The examination of each candidate shall last not less than two days, as follows:

"First day. Oral examination, not to exceed one hour in duration, as to the candidate's ability to determine the physical properties of drugs, chemicals and pharmaceutical preparations, used in the practice of medicine, the purity of the same and familiarity with the apparatus, instruments and utensils used in the practice of pharmacy.

"Upon finishing this examination, the candidate shall answer in writing five questions of a practical nature with reference to prescriptions, being allowed two hours for the written examination.

"Second day. Examination by the board as to the candidate's ability to make up preparations according to the Spanish Pharmacopœa, Seventh Edition, 1905; to recognize drugs or chemical products in ordinary use, as presented to him; and to fill four medical prescriptions with explanation of the steps taken. This part of the examination will be oral and practical, and for the same the candidate may be allowed the

amount of time deemed necessary by the board. Not less than four members of the board will be present at all meetings."

CHARLES E. MAGOON,
Provisional Governor.

While reading this it will be observed that

No primary or secondary instruction is required.

No questions about chemical and physiological properties of drugs, chemicals and pharmaceutical preparations will be asked.

That is easily explained. In nearly all cases they do not possess secondary or even primary instruction of any kind, and they do not know anything about chemistry.

This boon of becoming a practical pharmacist (endowed with all the rights of a Doctor of Pharmacy) in TWO DAYS without any preliminary studies, has not been limited by Governor Magoon to owners of drug stores. By the same Decree, No. 1320, it will be seen that:

"* * * persons who, at the time of the publication of this Decree are engaged in the practice of pharmacy * * * and who have had five or more years' experience therein, and are twenty-five or more years of age * * * are entitled to the same right. Many dozens of pharmacy clerks, drug store attendants, **even drug store accountants**, are going to try to reach the goal..

The pretext that such people will be subject to the same examination as is customary by the boards of pharmacy in the United States to obtain a practising license, **is not admissible**. The University of Havana has, besides its work of teaching, passing examinations and granting diplomas, vested in itself, by Military Order 266 of 1900, all the faculties of a board of pharmacy. The university is entitled to grant to any graduate of a foreign university or school of pharmacy, the diploma of Doctor in Pharmacy, if the applicant successfully passes an examination in physics, chemistry, botany, pharmacography, practical chemistry as applied to pharmacy, analysis of foods, drugs and poisons and practical pharmacy. This examination includes chemical and pharmaceutical laboratory work, and lasts three days.

Moreover, the university is empowered to grant the same diploma of Doctor in Pharmacy to anybody who, not being a graduate of any university or school of pharmacy, makes an application stating:

That he has a complete secondary instruction (proven by certificate).

That he has complete knowledge of all and each of the matters referred to above, and is willing to subject himself to **individual and successive** examinations of each one.

The Faculty of Pharmacy meets twice a year (June and September), to hold those examinations, and the applicant if he successfully passes them becomes not only a registered druggist, but also a Doctor in Pharmacy. These examinations last from three to five days and differ from the one of foreign graduates in being one on each subject, just the same as is required for the alumni who follow the regular pharmaceutical curriculum of our university.

The University of Havana is entitled to act as a board of pharmacy, because it is an official corporation, created and sustained by the State, which nominates the professors and pays all expenses.

As you may easily see, this last way is the one the non-pharmacist-owners, clerks of drug stores and others aspire to become full-fledged pharmacists without **wasting** any time in special studies.

Why does Governor Magoon ignore this law and authorize ignorant people whose competence cannot be demonstrated by the superficial examination stated in the "Official Gazette"?

Why does he wish to discourage young men who in an orderly and methodical manner employ their time and money in following the university studies?

There are now forty-two students in the School of Pharmacy who, since the Decree of Governor Magoon, have abandoned their studies.

These students are obliged to study, according to the Order No. 266 of 1900, in four periods of eight months each, as follows:

First period (eight months).

Physics (first course).

Inorganic Chemistry.

Botany (first course).

Second period (eight months).

Physics (second course).

Organic Chemistry.

Botany (second course).

Pharmacography (first course).

Third period (eight months).

Pharmacography (second course).

Practical Chemistry as applied to Pharmacy.

Analytical Chemistry.

Practical Pharmacy (first course).

Fourth period (eight months).

Practical Pharmacy (second course).

Analysis of Foods, Drugs and Poisons.

The examinations of each course are held in June and September and afterwards they undergo a general examination in which they perform four chemical analyses, microscopical examination of drugs, preparation of some chemicals and pharmaceutical preparations of the U. S. P. and to fill two prescriptions.

After this, they become Doctors in Pharmacy and are authorized to open or buy a drug store, or to carry on business on behalf of widows or minor children of deceased pharmacists (Arts. 2 and 20 of our law).

The Cuban pharmacists therefore demand:

1. That the Decree of Governor Magoon be declared null and void, and
2. That the university continue to enjoy its rights, and
3. That the law be enforced.

Commenting on this subject, the American Druggist says: In view of the fact that every effort is being made in the United States to gradually increase the requirements for registration as a pharmacist until graduation from a recognized college of pharmacy shall be everywhere required as a prerequisite to registration, it seems rather strange to see the provisional Governor of Cuba taking, what is, at least apparently, a retrograde step in abolishing the requirement of a university degree which has been enforced for many years in that country. It is quite possible that some abuses may have grown up under this system, but we should think that it might be possible to cure the abuses without destroying the system. One of the results of that system is that the pharmacist occupies a much more important position socially in Cuba than he does in the United States, and we should be loath to see him lose this position by the admission into the ranks of pharmacy of men not fitted by training and education to maintain it.

SALE OF PATENT MEDICINES VIRTUALLY ENDED IN GERMANY

Emperor William has come out in the most flat-footed fashion against patent medicines, which he seems bent upon abolishing altogether as far as

Germany is concerned. Four years ago on his personal initiative a law was devised and enacted compelling the manufacturers of patent medicines to state on each package what ingredients the medicine contained, and in what quantities. Not content with this, he has now affixed his sign manual to a new statute for the initiation and drafting of which he is almost entirely responsible and which prohibits the public advertisement of patent medicines and forbids the use of any printed or written statement in praise of the article or compound, as well as any testimonial or recommendation or anything in the nature of an advertisement or an inducement to buy. Chemists and all retailers are required to know the ingredients of patent medicines, except when they sell them on a doctor's order and prescription. Failing this, they are not only liable to punishment by the law if they sell patent medicines, but are also responsible in civil damages for any injury that may be caused by the remedy.

Inasmuch as the new law imposes severe penalties in the shape of withdrawal of licenses, confiscation, fine and imprisonment upon offenders, it looks very much as if the patent medicine industry and trade are at an end as far as Germany is concerned, while the Teuton press loses a very large source of revenue derived from the advertisements of the nostrums in question.—
New York Tribune.

In compiling a list of patent and proprietary medicines not labeled in accordance with the State Pure Drugs Law, an Oakland druggist found in his stock 654 items prepared by 453 firms. This gives some idea of the work involved in tabulating the stock lists of the druggist of a large city, and the amount of correspondence that will be had before all these goods are put in a salable condition as required by the new law.

Original Communications

CALIFORNIA MEDICINAL PLANTS

By Albert Schneider

216. *Cerasus occidentalis* Torr.
Red bud. Judas tree. Rosaceæ.

Bark used as a substitute for quinine. Requires further study. (Contrib. U. S. Natl. Herb. 7: No. II, 356.)

217. *Ceratonia siliqua* L. St. John's Bread. Carob. Leguminosæ.

Quite extensively grown in the southern part of the State.

This tree was known to the ancients and the fruit was eaten, which is rich in sugar and has laxative properties. Seeds are very hard and are rejected. Cultivated in various warmer countries, and the pods are often used as fodder for horses.

The fruit is used in a patented remedy of California sold under the name of "Carob." It is tonic and laxative. (Miss E. Nelson. The history and uses of Carob, St. John's bread. Thesis. Calif. Coll. Pharm., May, 1904.)

218. *Cercis occidentalis* Torr. Common Red bud. Leguminosæ.

Bark was used by old settlers as a substitute for quinine in the treatment of malarial fevers.

219. *Cercocarpus betulæfolius* Hook. Rosaceæ.

Shrub, 2-15 feet high. Valued as fuel. Reported to have medicinal properties.

220. *Cereus (Cactus) grandiflorus* L. Night blooming cereus. Cactaceæ.

This plant does well in the State when carefully cultivated. A very valuable heart tonic with the properties of digitalis. Poisonous. Culture well worthy a trial. Common as an ornamental plant. (B. R. Nichols.

The histology and chemical constituents of *Cactus grandiflorus*. Thesis. Calif. Coll. Pharm., May, 1904.)

221. *Chamæcyparis (Cupressus) lawsoniana* Parl. Oregon Cedar. Ginger pine. Coniferæ.

Wood of excellent quality, very fragrant, credited with antiseptic and other properties, said to be especially useful in diseases of the lungs.

222. *Chenopodium* species. Pig-weeds. Chenopodiaceæ. These weeds are common.

The following species are the most important: *C. ambrosioides* (Mexican tea), *C. anthelminticum* (Wormseed), and *C. californicum* (Soap-plant.) Most of them are used medicinally, principally the seeds, as a vermifuge. Seeds are rich in oil. (See Proc. A. Ph. A. (Abs.) 27: 152, 1879.)

223. *Chenopodium album* L. Pig-weed. Chenopodiaceæ.

Leaves used as greens. Indians use old leaves to relieve stomachache.

224. *Chenopodium botrys* L. Jerusalem Oak. Chenopodiaceæ.

Is frequently cultivated for medicinal purposes. Other species are *C. murale*, *C. rubrum* and *C. vulvaria*. There are no doubt additional unidentified species. The Indians use the leaves as food and the seeds and other plant parts medicinally.

225. *Chenopodium californicum* Wats. Soap-plant. Chenopodiaceæ.

Roots formerly much used as a substitute for soap. Still so used to some extent.

226. *Chimaphila menziesii* Spreng. Pipsissiwa. Princes pine. Ericaceæ.

The leaves are highly valued as a tonic, astringent, and as a remedy for

cataract. Other species are *C. corymbosa* Pursh and *C. maculata* Pursh. No doubt the leaves of these species have medicinal value.

227. *Chlorogalum angustifolium* Kell. Soaproot. Liliaceæ.

Found in the San Joaquin Valley and upper Sacramento. Requires further study.

228. *Chlorogalum pomeridianum* Kunth. Soaproot. Soap-plant. Liliaceæ.

Very common in California. Has received considerable attention. Used by California Indians and Spaniards for cleansing. Rich in saponin. Poisonous, used by Indians to stupefy fish.

Young shoots eaten by nearly all Indians. Dried juice of bulbs used as a glue for fastening feathers to arrows. Roasted and powdered bulbs are used as an antiseptic application to ulcers and sores. A decoction of bulb is said to be useful as a diuretic and laxative, etc. (E. W. Thiercof. The soap-plant of California. Thesis. California College of Pharmacy, May 9, 1904.) (Contrib. U. S. Natl. Herb. 7: No. III, 319.)

229. "Chucklusa."

An Indian name applied to several species of *Peucedanum*, used medicinally and as food. (Am. Journ. Pharm., 1890.)

230. *Cichorium intybus* L. Chicory. Compositæ.

This plant has been cultivated very successfully in California in the San Joaquin Valley. Well known. Used as a surrogate for coffee.

231. *Cicuta* species. Water hemlocks. Umbelliferæ.

Most of the species are believed to be poisonous, and it is known that many are highly poisonous. It is stated that drinking water in which

the poisonous species grow will cause symptoms of poisoning.

For cattle poisoning, melted lard is much used as a popular remedy. For references to chemistry, etc., see U. S. Disp.

232. *Cicuta bolanderi* Wats. Large water hemlock. Umbelliferæ.

Found only near San Francisco Bay. Requires further study. Poisonous.

233. *Cicuta douglasii*. Purple-stemmed water hemlock. Umbelliferæ.

Very poisonous. Western Range, Oregon, Idaho and Washington.

234. *Cicuta maculata* L. American water hemlock. Umbelliferæ.

A very poisonous plant, native of the United States, found in swampy lands, having a parsnip-like odor. Possible medicinal uses not investigated. Eastern in range. (Calif. Geol. Surv. Bot. 1: 260.)

235. *Cicuta occidentalis* Green. Wyoming water hemlock. Umbelliferæ.

Poisonous. Used by Indians for suicidal purposes. The root is dug up and eaten. Piutes seem to have suicidal tendencies. Poisonous to cattle. Requires further study.

236. *Cicuta vagans* Greene. Oregon water hemlock. Apiaceæ. (Umbelliferæ.)

A western plant found in Northern California, Idaho and British Columbia. Poisonous properties like those of Conium. Requires further study.

237. *Cicuta virosa californica* C. & R. California water hemlock. Apiaceæ. (Umbelliferæ.)

Near San Francisco Bay. Very poisonous. Requires further study as to identity as well as constituents. Well known in Europe. Eastern range in U. S.

The active principle of the cicutas is not well known. It appears to be a

compound, which has been named cicutoxin by R. Boehm. It is a resinous, non-crystallizable body, acid in reaction and very bitter, readily soluble in water. It is not an alkaloid, but a toxin, resembling andromedotoxin.

238. *Cinchona* species. *Cinchonas*. Rubiaceæ.

Cinchonas have been grown in the Berkeley gardens, and the alkaloidal constituency thereof examined. It has been suggested that the climate of the mountainous regions of Northern California would be well suited for *Cinchona* cultivation, but it is very doubtful whether they would thrive, on account of the low winter temperature. (See paper by Happersberger.)

The conditions (atmospheric moisture, drainage, temperature, rainfall) in many localities of Southern California, particularly near the coast slopes, would seem suitable for *Cinchona* culture, especially the hardy *C. officinalis*. (U. S. Disp., pp. 388-418.) (Bailey, Cycl. Am. Hort., 316.) (Univ. Calif. Coll. Agr. Rep., pp. 74-75, 1879; pp. 103-105, 1883.)

James MacPherson, who has resided at the plateau of the Nilgiri Mountains in India, states that the list of plants in the Report of the Park Commissioners of Golden Gate Park is closely similar to that of the Nilgiri Plateau.

For references to literature and abstracts of papers on the history, uses and cultivation of *Cinchonas*, see volumes of Proceedings of the American Pharmaceutical Association, especially the earlier numbers ranging from the first number up to 1880 and later. Each volume will have several references to the subject.

239. *Cinnamomum camphora* Nees. Camphor tree. Laurineæ.

Has escaped from cultivation and thrives well throughout the State. Of slow growth. No practical attempts at

cultivation and camphor production on a large scale have thus far been made in the United States. There seems to be no good reason why California, Florida and other warm States should not supply camphor. The California tree is evidently as rich in camphor as that of China and Japan, as is shown from recent tests made at the California College of Pharmacy by E. M. Kimberlin (thesis in college library). Whether camphor production could be made profitable in California has not yet been determined. Carefully planned tests and experiments would be very desirable to determine this.

240. *Cinnamomum ceylanicum* Nees. Ceylon cinnamon. Laurineæ.

Cultivated in southern part of the State. Other species are also cultivated. No commercial use made of the bark. Handsome trees.

241. *Cirsium (Cnicus) arvensis* Scop. Canada thistle. Compositæ.

This plant is said to contain an alkaloid and have emetic, tonic and diaphoretic properties. Root astringent, and has been used medicinally. An introduced plant. (H. J. Pierce. Am. Journ. Pharm. LVIII:1896.)

242. *Cistus* species. Rock rose. Labdanum. cistaceæ. (See also labdanum.)

Evergreen shrubs extensively cultivated. Contain a resinous substance (labdanum) which is of considerable commercial value in the Orient. It is an expectorant tonic formerly much used in catarrh and dysentery. Now used only in plasters. (*C. labdaniferus* L. and other species.) (Am. Journ. Pharm. XLVII:499. 1875.) (Proc. A. Ph. A. XXVII:224. 1879.)

She—Do you think it is possible to get through this world with an absolutely unblemished reputation?

He—Of course not! There are spots on the sun!

ON THE FIRST

By H. D. Morgan

"Well, boys," said the Boss, "to-night is the night we get busy—tomorrow all our 'charge' customers must have their little reminders that 'a paid bill insures a credit.'"

"You know, boys, it's Business and not a Dun to let a man know on the first what's coming to the fellow who 'loaned' him goods for thirty days. The man who intends to pay doesn't mind receiving the 'statement'—is glad to look over and see if it is correct. Don't ever frown when you receive a statement of your account from your creditor. If you don't enjoy receiving notice the best way is to pay cash."

"Now, back to our work—if our customers receive no statement tomorrow some are apt to step in and ask what the trouble is. You know, they always receive it on time."

"What would you think of a wholesale house that forgot its statements on the first of the month? Rather lax business methods, eh? Just so with us."

"The wholesaler does not itemize his statement each month, so why should we? The little wrinkle I showed you the other day on the new little 'bills' gives your customer the required knowledge. Look at it and see. Just hand me one, George."

No. 3721

Bought of

ISLAND PHARMACY COMPANY

Santa Catalina Island

Drugs, Medicines and Sundries

Clerk H.

Avalon, Cal. 10/3/05

Mr. I. Nevropa

Candy	10
Cards	25
Salts	10
Cigars	25
	70

We do not itemize statements. Preserve this bill.

"These little bills are made as you see with a duplicate. The carbon copy on the blank attached to the original is put in your register. The original should always be wrapped with the goods."

"These bills are not expensive, a multigraphing company puts them up for us in bound books of one hundred each, to which is attached a sheet of carbon paper, at \$5.00 per thousand. At the time of making up your cash you post these articles in a loose-leaf ledger—you know, boys, a loose-leaf ledger is THE way to keep petty accounts. For when a man pays his bill you receipt the only record you have and he takes that away. That record gone means he has paid, and you don't send him another statement with a 'please remit.'"

"On the last day of the month foot up these charges—mail a statement reading: .

Monthly Statement.

Avalon, Cal., 11/1/05

Mr. I. Nevropa

To ISLAND PHARMACY CO., Dr.
Santa Catalina Island.

Terms Net Cash.

6/30/05	Drugs & Mdse	70
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This statement is issued each month to show the exact state of your account. Is not to be mistaken for a dun except where accounts are overdue.

"Don't go at things in a half-hearted way—either Do or Don't. Why send a statement if you are sorry for it? It's right and just—you owe it to the

man who buys goods from you on time.

"Don't take a pack of statements under your arm on the first and let all your neighbor tradesmen know you are swamped with accounts. Select a few you know will be 'glad' to see you. The ones that are 'good' you may pay Uncle Sam two cents and he'll see that your man gets his mail. This is the cheapest way to collect. A good man does not need a 'personal' from you and the 'bum' ones keep off your books.

"Boys, it's better to GIVE the 'deadbeat' what he needs than to make your eyes sore staring at his bad account.

"When we do get stuck—which does occur once in a while, we 'jab' his memory once a month for twelve times—in other words we spend twenty-four good cents, and if we find there's 'nothing doing,' a 'personal' is mentioned, and one or two little 'privates' are written him on each of these twelve. He will either explain, dig up, or play 'hide-and-seek' when he meets you on the street. Time has arrived, and it's 'every man for himself.' Our way is, if the bill is not large—which you may rest assured 'beats' bills are not large with us—is to send him a receipted bill something like this:

Avalon, Cal., October, 1905.

Mr. I. Nevropa

In Account With
ISLAND PHARMACY CO.,
Santa Catalina Island.

10/3 Candy	10
Cards	25
Salts	10
Cigars	25
	—
	70

Stmt. rend.

11/1/05

12/1/05

1/1/06 P. R.

2/1/06

3/1/06

4/1/06

5/1/06 P. R.

6/1/06 P. R.

7/1/06 P. R.

PAID O. K.

Jan. 1, '07.

We are tired carrying this acct. Our dealings hereafter must be cash.

BEEN BEAT, Mgr:

"This is the last appeal. If he is 'square' he'll come in and pay. Never mind about 'hurting' his feelings. The man whose feelings are so easily hurt will have 'squared' long before this.

"At any rate you've gotten rid of one more page of your petty ledger. BUT—DON'T forget to keep a 'blacklist.'

"Now, boys, let's to work."

PETS AND PESTS

There is a close similarity between the words **pet** and **pest**. They are, in fact, interchangeable. A pet may be a pest, and, **vice versa**, a pest may be and often is a pet. House dogs and cats are usually designated as pets, but they are also pests and very objectionable ones at that. Numerous parasites are transmitted from these pets to the children permitted to play with them. These pets rummage around in the alleys, filthy back yards, garbage and filth, and at once return into the house to be petted and kissed by the dear children or by the lovely mistress. In this manner all sorts of filth diseases may be acquired.

Shall we continue to tolerate these pets or pests into our homes?

Luminous Ink

Shines in the dark. Phosphorus, 1 dr.; oil cinnamon, ½ oz. Mix in a vial, cork tightly, heat slowly until dissolved. A letter written with this ink can only be read in a dark room, when the writing will have the appearance of fire.—Contributed by Frank Pavlik, Winnetka, Ill., in **Popular Mechanics**.

NOTES ON THE DETERMINATION OF TINCTURE OF IODINE

By Prof. H. J. Lohmann, Jersey City.

Read before the New York branch of the A. Ph. A., at the regular meeting, January, 1908.

Tincture of Iodine is again the subject of worry and anxiety among pharmacists and a subject of annoyance to the Committee of Revision. We felt that with the 8th Revision of the U. S. P. we would have a Tincture that would remain permanent, at least to an acceptable extent. This, however, is not exactly the case, especially as far as some Boards of Health are concerned. There are several points to be taken into consideration in making this Tincture. Recent experiences have spurred me to make a number of experiments with the constituents of the Tincture of Iodine, the result of which I now wish to submit to you.

The U. S. P. is brief in its directions for the preparation of the Tincture. The Revision Committee in the first place did not intend to have the KI estimated, for, had such been its intention, the process for estimation would have been given.

The KI is intended as a preventive to the reduction to the Iodine. Conditions have arisen that interest the pharmacists, especially in New Jersey, that will require them to be exceedingly careful in the manufacture of the Tincture.

Bearing on the KI.—The deliquescent character of the KI makes it necessary to dry it in a hot oven at 100° C. for half an hour to insure an anhydrous salt, as the U. S. P. requires, or, at any rate, as some of the analysts determine it. To do that properly, I should suggest that the KI be reduced to a very fine powder, placed in the oven for half an hour, and then carefully weighed. Seven (7) Gm. taken from my stock bottle after drying

weighed 6.97—a loss of 0.03 or 0.42%.

The KI is very slowly soluble in Alcohol U. S. P., in some instances requiring three days to produce a complete solution of finely powdered KI at 25° C.

Alcoholic Solution of KI.—When first prepared the solution is colorless, but after four days, when kept at a temperature of 25° C., it begins to assume a yellowish color; this color intensifies gradually until a decided straw color has been attained, and a fine amorphous precipitate has been formed. It is quite evident from these physical conditions that a chemical reaction has taken place.

Upon distilling the filtered liquid made 5% KI on December 1, 1907; on January 8, 1908, showed 4.65 Gm. KI in 100 cc.

Examination of Distillate.—Tests applied to the distillate of the alcoholic solution of KI give the following reactions:

1. Heat gently 2 cc. of the alcoholic distillate with 2 cc. dil. H_2SO_4 and 1 cc. N/10 $K_2Cr_2O_7$ —green opalescence, which upon standing one hour becomes quite pronounced, and a white ppt. is produced.

2. Heat gently 2 cc. of the distillate with 1 cc. dil. H_2SO_4 and 1 cc. dil. HCl , white opalescence, which upon standing one hour becomes quite pronounced and a white ppt. is produced.

3. To 2 cc. of the distillate add 1 cc. N/10 $AgNO_3$ sol—a flesh-colored clear liquid is produced, which upon standing will develop a yellowish red ppt.—clear, colorless liquid. In all of the foregoing reactions Alcohol U. S. P. will remain clear.

From the foregoing reactions we find that a volatile Iodine compound is produced, the chemical reaction taking place being most likely represented by the equation:



Thus we note the formation of Ethyl Iodide with traces of HI, the acid reaction of the distillate being indicated with Tr. Turmeric. While it has been claimed that the presence of the KI in the Tincture will prevent the deterioration of the Iodine, there is now an opportunity for discussion. Experimental Tr. Iodine, consisting of 8% Iodine and 6% KI, carefully made on December 1, 1907, as directed in this paper, showed on December 20, 1907, Iodine 7.66 and KI 5.54. On January 8th, this sample showed Iodine 7.65 and KI 5.51.

Considering the foregoing figures 8% and 6%, respectively, as 7% and 5%, as required by the U. S. P., they would stand on December 20th, Iodine 6.7 and KI 4.616, and on January 8th, Iodine 6.667 and KI 4.59.

Now that we find the reduction in the I and KI to take place coincidently, it is clear that the presence of the KI in the Tincture might to an extent modify the deterioration of the Iodine, but it does not check it entirely. I am, however, not in a position at this time, owing to the fact that I have not found the stage at which the substances have shown a cessation of reaction, to state the extent of the reduction. I trust I will be able to give you the complete data at our next meeting.

The Drug Store Man

Sing, ho, for the noble drug store man!
He's got the nicest store;
And on the most obliging plan
He runs it to be sure.
Consult his big fat shiny clock
If you no time-piece own,
And every neighbor in the block
May use his telephone.

Your telegram he'll gladly send,
His errand youngster by;
His window mops and pails to lend
To all who may apply;

Of cards and stamps a long array
On hand hath always he,
And all may look who pass that way
At his directory.

He'll tell you if it's apt to rain
As near as he can guess;
He'll tell you how to take a stain
From out your muslin dress;
He takes the laundry if you choose;
He's always at your beck.
Nor is he like to e'en refuse
To cash a casual check.

Sing ho; the noble drug store man;
It is his constant care
To serve us in what ways he can
While we with virtuous air
Accept with scanty graceful shrugs
His services galore.
Then go down town to get our drugs
At the department store.

Some middle State food commissioner has made a laughable blunder in condemning a brand of prepared fish because he found on analysis that a minute quantity of boric acid was yielded to the tests of the chemists. The fish was condemned. The laws of the State permitted fish prepared with salt, and it appears that this fish was prepared with the purest of salt obtainable, manufactured from sea water. Sea salt, it seems, on analysis, contains a small portion of boric acid. Nature put it there, and she put formaldehyde in water, and pyroligenous acid in wood smoke and a good many other horrible things in various innocent carriers, but in minute quantities. When an expert begins to decry the works of nature, he is at odds with everything.

Chinamen Need Sedatives

At Kaihsion, China, recently, a Christian mission station was destroyed by a lot of irate natives. The trouble had its origin in the government trying to enforce the new law against the cultivation, sale and use of opium. Evidently the government has been looking up the latest treatment of opium habit, which recommends the sudden and complete withdrawal of the drug.

There are about 900 drug firms in California, and about 3,500 registered pharmacists and assistant pharmacists.

A Plea for the Pharmacist

The professional man of today in America, the doctor, lawyer, dentist, etc., is given a higher standing in the community than the pharmacist and chemist. And why is this? They all hold responsible positions in their own sphere. Their professions are in existence for the betterment of mankind, physically, morally, and mentally, and all get **due credit** for this, both in dollars and esteem, **except** the pharmacist and chemist.

The people of America (for this is not so in Europe) do not class him with the other great professions, and again we ask, Why?

Is it thought that he has no years of preparatory study and work which fits him for his profession; or, if so, that the time is just spent in learning how to roll a pill, or pour the contents of one stock bottle and that of another together and dispense it, without knowing the why and wherefore, etc., or that he has no responsibilities attached to his labors? From the ideas held of him by the public at large, it seems so.

It appears that they are ignorant of the fact that it takes time, money, and study for two years at least of college work and (in this State) five years' practical work to acquire the knowledge possessed by the average pharmacist, and to become a chemist (in the true sense of the word) it means work and study for the rest of his life.

Neither does the public consider the responsibility attached to the position, not in selling "patent medicines," soaps, perfumes, pictures, suit-cases or cameras, over the so-called "drug store counter," but in the capacity of the druggist in preparing and dispensing his wares, for in his acuteness and in the **knowledge** of his drugs depends the health of the populace. Should a doctor write a prescription that under ordinary circumstances proves fatal to the life of his patient, it is the druggist's place to notice the mistake and decline to fill the prescription; should he fail to do so, and evil effects result, the pharmacist is responsible and not the writer of the prescription. This and many other great responsibilities are the pharmacist's.

To the chemist we owe most of our present-day enlightenment, for since the time of Aristotle and the alchemists to the present day and the days to come, it has

been the chemist, and will be he, who will help us break away from many of the great superstitions we possess and the many so-called "miracles" we still believe in.

In short, I believe the pharmacist deserves a better compensation than he gets, shorter hours with more pay, be he employer or employee, and in demanding this it will be a step upward to better recognition from the public. Also in shorter hours he would have time to devote to research work in his profession, which many pharmacists would love to do had they but the time. This also would help to bring them the recognition they deserve, and make the druggist also a chemist, which some are not today. Let the pharmacist of today become the apothecary of yesterday, when he was looked up to with respect, if not even with reverence, instead of, as at the present day, the keeper of a department store, and he will gain the recognition he is striving for, and which he deserves.

EDWIN E. HUTCHING.

The Weight of the Soul

Once upon a time so-called philosophers concerned themselves with the question as to how many angels could dance upon the point of a cambric needle. Recently the question as to how much the "human soul" weighs has received considerable attention. A medical authority (?) claims to have proven that the soul has weight. It is strongly urged that all individuals found occupying themselves with such profitless, absolutely idiotic questions should be set to work breaking stone until cured. The remedy is guaranteed.

Immune

A certain women's club had a full meeting, and an important discussion was on. In the midst of it one woman rose and asked the privilege of the floor for a moment. It was granted, and the interrupter, in a voice strained with emotion, said: "Is there a Christian Scientist present?" A woman arrayed with laborious magnificence arose on the other side of the room, and, in a stately tone of kindness, said: "I am a Christian Scientist." Then across the intervening space the first woman's sweet voice said: "Would you mind changing seats with me? I am sitting in a draft."—**Bellman.**

Scientific Notes

THE PROPHYLAXIS AND ERADICATION OF PLAGUE

The following is an abstract of a paper by Dr. Rupert Blue in the California State Journal of Medicine:

The epizootic disease of rats, known as plague, is communicable to man through the agency of the flea, by infected food and air. The consideration of the prophylaxis of this disease therefore naturally falls under these heads.

Since the most remote times the connection between rats and plague has been fully recognized, but it has remained for the modern scientist to establish this beyond question. The researches of the British Commission in India have made a strong case against the rat and have proven beyond cavil the transmission of the disease by the flea. Simpson's work in Hongkong goes a long way to prove that the dried excretions of plague-infected rats entering the human system through the intestinal or respiratory tracts is followed by septicemic or pneumonic plague. It is therefore apparent that whatever measures of prophylaxis or eradication we are to take must be directed against rodentia, particularly rats and squirrels and their parasites.

To destroy the rat, his home must be made untenable and his food supply forever cut off. All rat-holes and rat-runs in infected blocks should be flushed with an active antiseptic solution, poisons such as arsenic or phosphorus paste placed therein, and the holes closed with cement or broken glass and bricks. The entire infected region should be poisoned at frequent intervals with the chemical poisons mentioned above or the biological poison known as Danysz's virus. This consists of a culture of the *B. typhimurium*, and if of high virulence is most efficacious. In 1889, Laeffler, while investigating a sporadic disease among mice, discovered the *B. typhimurium*. Danysz, recognizing the possibilities of such a bacterium, exalted its virulence until it was lethal to rats. It produces in them a contagious disease, characterized by a fatal entero-colitis. The method of distribution of this organism is to mix alkaline bouillon cultures which have been in-

cubated from four to six days at room temperature, with yellow corn meal or any of the farinaceous foods. The cultures are liable to rapid deterioration and should therefore be spread at frequent intervals. A reliable check on its efficiency is to trap rats in the district where the poison has been spread and to quarantine them in the laboratory. On their death they are necropsied to determine if they have died of mouse typhoid. The rats should be trapped with wire cage or snap traps and an active campaign of extermination carried on against this pest, which annually destroys millions of dollars of merchandise and is a constant menace to the health of the community.

Passing from the consideration of rat-plague to human plague, the prophylactic measures to be adopted to protect man are, the early discovery and isolation of all sick of plague, the daily examination of all contacts for a period of seven days and their protection by immunizing doses of Yersin's serum or Haffkine's prophylactic. The earliest as well as the surest way to discover the existence of the disease among the living is the careful examination of all dead by physicians skilled in the diagnosis of plague.

Whenever it is thought that plague may exist in a community, a carefully organized campaign should be immediately instituted. The territory should be divided into districts and a trained medical man placed in charge of each. A sanitary survey should at once be made and all premises carefully inspected. A record should be made of the conditions found at this time and the opportunity taken to instruct the general public of the methods of the spread of plague and the necessity for destroying rats and rat-food.

Whenever a case of human or rat plague is discovered, the building should be fumigated with sulphur in the proportion of five pounds to the one thousand cubic feet of initial air space, after careful sealing of all openings through which the gas could escape. The carpets should then be removed and beaten, the floors swept and the sweepings burned, and the floors of the house

washed down with an active antiseptic solution to kill fleas and flea-eggs. Following this, the yard and outbuildings should be similarly treated and a careful examination made of the space beneath the floors and in the hollow walls for the bodies of dead rats. The same measures should be applied to contiguous houses and the entire block and the blocks surrounding it freely poisoned.

Bedding and clothing contaminated with the excretions of plague cases should be destroyed by burning. Other articles liable to convey the infection should be immersed in bichloride, 1 to 500, or carbolic acid, 1 to 40.

Subsequent cases occurring among non-contacts would indicate an error in technic. Houses or buildings in which plague continues to manifest itself after the application of the above measures should be vacated and destroyed to prevent the spread of the disease. Badly infected areas may be depopulated and the people removed therefrom, placed in detention camps for observation until the period of incubation is passed.

It should not be forgotten that plague is frequently a ship-borne disease and follows the lines of travel. This requires an outgoing quarantine and the fumigation of all vessels touching at infected ports prior to departure.

Plague is a disease slow to gain epidemic proportions. Planted on a virgin soil, its subterranean mode of development requires time for it to reach its greatest intensity. Nine years passed before the great London epidemic reached its height, but once the disease strikes root, it is difficult to eradicate and its climax is a horror.

THE ANTITYPHOID SERUM OF CHANTEMESSE

Among the attempts to perfect an antitoxic or bactericidal serum for typhoid fever the work of Chantemesse has proved the most successful. His recent report on the subject¹ is most encouraging, covering as it does the work of six years, so that the element of variation in virulency of the disease at different periods is eliminated. He reports that in the 1,000 patients sub-

jected to this method of treatment during the past six years the mortality was 4.3 per cent, while the mortality in the 5,621 patients treated at the other hospitals of Paris during this period was 17 per cent.

The serum of Chantemesse is obtained from horses, which for long periods have been subjected to typhoid toxins, in the form of filtered and sterilized cultures grown on bouillon of beef spleen, hypodermically administered. The dose of the serum is from one to five drops, given under the skin. After such an injection there follows a period of reaction, when the temperature seldom falls and frequently is somewhat elevated. The general condition is not improved during this reaction, which lasts from a few hours to several days. Chantemesse regards this phenomenon as the result of the destruction of the bacilli in the body and the consequent release of an additional amount of toxin. A study of the influence of the serum on the opsonic power of the blood indicates that the bactericidal action of the serum is in large part due to its stimulating effect on this phenomenon. The opsonic index is found to be increased to a greater degree in severe infections than in the mild ones, and for this reason Chantemesse advises using a minimum dose of the serum in severe cases, as the greater the bactericidal power of the blood the greater will be the reaction.

The work of Chantemesse seems to promise much in this field, for should the ophthalmo-typhoid reaction described by him prove reliable as an early diagnostic sign it would render possible the use of the serum at a stage of the disease when this form of treatment offers the most hope.—*Journ. Am. Med. Association.*

¹ L'Hygiène Gén. et Appliquée, October, 1907.

Glycerin in U. S. A.

The New York correspondent of the London "Daily Express" reports that a company has been promoted to erect a soap factory to enable the United States to meet its own demand for glycerin, instead of relying, as it does now, on Europe for more than half its supply. The capital is to be £250,000, and the location will be either in Texas or Kansas. The correspondent states that it is to be the largest concern existing in the soap and glycerin industry, and will not only stop the import trade in glycerin to America, but will also probably do a large export trade.—Chemist and Druggist.

A New Active Alkaloid from Ergot

Barger, Carr, and Dale have announced ("British Medical Journal") the discovery of a new alkaloid, **ergotoxine**, from ergot, which in small doses produces all the effects of the drug itself. Chemically, it appears to be closely related to **ergotinine**, which readily crystallizes, but from which crystalline salts have not as yet been produced; ergotoxine, on the other hand, will not crystallize in the free condition, but readily yields crystalline salts. It also possesses a very high physiological activity and undoubtedly plays an important part in the physiological activities associated with ergot and its therapeutic applications.—Bulletin of Pharmacy.

To Remove Paint Spots

Where a house is being done up, paint is not infrequently spilt on doorsteps, and it is sometimes found difficult to remove. In that case, make a strong solution of potash and wash the steps, simply leaving the solution to soak in. In a short time the paint will become soft and then can be washed off with soap and water. Then use cold water. Paint which has been left for some time will yield to this treatment.

EXTRACTION OF CAFFEINE

Caffeine is extracted on a considerable scale from cheap teas and tea dust by the following processes: The tea is exhausted with boiling water, the decoction boiled with litharge or lead acetate, and the filtered solution evaporated till the alkaloid crystallizes out on cooling. The product can be purified by sublimation or by recrystallization from hot water. For sublimation the filtrate from the lead treatment is evaporated to dryness, mixed with sand and sublimed.

POPULARIZING DENATURED ALCOHOL

A representative of the Internal Revenue Service is responsible for the information that there has recently been marked growth in the denatured alcohol industry in the farming sections of this country, and that farmers everywhere are addressing letters of inquiry to the government authorities respecting the installation of plants and manufacture of alcohol for domestic purposes.

The government is anxious to promote the industry, and to this end is not only promptly affording the information sought, but is offering every encouragement in the way of advice and assistance, because the general use of denatured alcohol means not only cheap fuel and cheap illuminant for sections of the country where fuel is not easily accessible, but the utilization of waste materials in place of economic extravagance.

—Paint, Oil and Drug Review.

To Stop Hiccough

Hiccoughing can be stopped by sneezing. A physician says he has successfully cured a case of persistent hiccough by tickling the patient's nose. It is not necessary that the stimulus applied to the nose be followed by sneezing, the application of a mild irritant to the nasal mucous membrane being sufficient to divert the nervous energy into other channels.—New York Press.

"What you want to do," said the druggist, as he handed the old darkey the medicine, "is to take a dose of this after each meal." "Yes, suh," was the reply, "an will you tell me whar I gwine ter git de meals?"—Atlanta Constitution.

THE BUBONIC PLAGUE ON THE PACIFIC COAST

In the Dec. 14th issue of the *Journal of the American Medical Association* is an excellent summary of the plague status on the Pacific Coast. The subject is treated historically, giving an outline of the work of plague extermination done in the past and present. The attempts to hide the existence of the dread disease in the past is severely criticized. The article concludes with the following statistical summary which is hereby appended:

Marine-Hospital Service Staff Employed on Plague Work, November 30, 1907.

Commissioned officers, 8; acting assistants, 8; inspectors, 26; inspectors of the dead, 2; assistant inspectors, 25; foremen, 50; laborers, 250. In addition, the city has a sewer gang, and the usual staff of the Board of Health.

Table 1—Plague Cases and Suspects by Months

	Suspects.	Suspects discharged.	Verified as plague.	Died.	Recovered.
May, 1907	1	..	1	1	..
June, "	..	..	..	..	..
July, "	..	..	..	..	..
Aug., "	16	..	13	6	..
Sept., "	69	..	45	22	1
Oct., "	66	21	29	24	20
Nov. "	42	8	21	13	12
Totals	194	29	109	66	33

Table 2—Summary of Work Done from September 28* to November 30, 1907.

No. of sick inspected	523
No. of dead inspected	638
No. of premises inspected	49,145
No. of houses disinfected	986
No. of houses destroyed	494
No. of nuisances abated	3,686
No. of rats found dead	7,281
(Smallest No. 435, largest No. 2,604.)	
No. of rats trapped	19,362
No. of rats, bounty paid	6,251
No. of poisons placed	1,297,042
No. of rats bacteriologically examined	8,980
No. of rats found infected with <i>B. pestis</i>	31
Contacts inspected	408

Note.—It is extremely improbable that there were really no cases of plague in June and July; there were probably some unrecognized. The records prior to September 13 are too chaotic to be of value except for verified cases and deaths.

* The systematic filing of this information was begun on the former date.

A New Dry Milk Process

An interesting method of production of dry milk, or milk flour, is described in the *Scientific American*, which makes no use of high temperatures and in which numerous advantages are claimed for the resulting product. The process of manufacture is described as follows: The milk, from which the cream has been previously separated, is run through a centrifugal clarifier, which removes all floating impurities and foreign substances; the liquid is then allowed to cool below the temperature resulting from the action of the clarifier, and is then placed in open receptacles, from which it is drawn into the desiccator. The latter consists essentially of a large closed copper vessel,

provided with glass receptacles, vacuum gauges, and thermometers by which the progress of the operation may be watched. A large pipe rises from the top of the copper vessel and leads to a cylindrical condenser, in which is arranged a coil or worm of small piping. Between the condenser and the desiccator the large connecting pipe is provided with a cap, to prevent the accidental return of any of the evaporated and subsequently condensed liquid in the vessel. A strong vacuum pump communicates with the desiccator through the condenser and the connecting pipe. When the milk is ready for drying the vacuum pump is started, and this creates a partial vacuum within the copper vessel. The end

of a rubber tube in communication with the latter is now introduced into the receptacle containing the milk, and the liquid is then rapidly drawn into the desiccator by means of the vacuum within the same. The pump continually draws off the vapor during the entire operation, which lasts from three to four hours, and it maintains the partial vacuum in the desiccator during this period. The action is thus analogous to boiling off the water, though the temperature of the milk is maintained under 105 degrees F. To the eye the operation is indistinguishable from a direct boiling of the milk by means of application of heat; but it is claimed that by this absence of heat the chemical properties of the milk are not altered in the least, notwithstanding that the process removes impurities and destroys all harmful bacteria. The vapor is changed to liquid form in the condenser, where it is cooled by a flow of cold water through the worm located within it. From the condenser the liquid, which has been shown to be chemically pure distilled water, flows into a tank provided with gauge glass, by means of which the amount evaporated can be actually estimated, and thus the progress of the operation may be checked by the amount of the condensed water. When the milk has been sufficiently dried, the moist, white, flaky solid is removed from the desiccator through a suitable opening in the bottom. It is then placed on flat pans and completely dried by means of a blast of cold, dry air. The crusty mass of the dried milk is ground or powdered by being placed in a revolving metal cylinder, which contains a number of porcelain balls. These are tumbled about by the rotation of the cylinder, and soon reduce the milk solids to a fine flour.—**Monthly Magazine of Pharmacy.**

In a recent issue of **Thomas' Weekly Review**, H. W. Wiley, Government Chemist, deals with the sulphur question in an exhaustive article covering several thousand words. Of its alleged effect upon apricots, peaches, pears and mandarins, he says sulphuring is practiced for the following reasons:

1st—To produce as clear and intense a yellow color as possible.

2d—To conceal decayed portions of the fruit which have been overlooked in trimming.

3d—To prevent fermentation and decay during the drying of the fruit.

4th—To protect the fruit during drying from flies and other insects, the larvæ of which otherwise develop after the fruit was stored.

5th—To kill the cells of the fruit and thus make the texture more porous, which expedites drying.

Admitting the truth of all this, it does not seem that any serious harm could come to the consumer or his family, although further on in the article Dr. Wiley says "the analytical data also show that a portion of the sulphurous acid used in the preparation of such products becomes oxidized into sulphuric acid after a certain time, thus artificially increasing the small amount of sulphur naturally present in some food products, which does not appear to be a desirable practice."

To Exterminate Gophers

E. S. Ryder, in "**Country Life in America**," says that having noticed that gophers are fond of pinks and lobelia, and also of sweets, got rid of the pests by smearing sprays of lobelias with honey with which he had mixed cyanide of potassium.

A new plague protective or rat poison has been discovered in India. It consists of a pasty substance inoculated with a bacillus. According to report, a rat which takes enough to cover a pin's head will not only die, but will infect every other rat with which it comes in contact. Five villages have been selected by the government in which to make tests of the new poison.

Fruit-growers of Kings County, Cal., met to protest against the Department of Agriculture's ruling on the sulphuring of fruit. The following resolutions were adopted:

"The fruit growers of Kings County, representing 6,000,000 pounds of dried peaches and 2,000,000 pounds of dried apricots, resolve that the enforcement of decision No. 76, without modification, will result in and cause the destruction of the cured fruit industry of Kings County."

The resolution further states that the steam process proposed by Dr. Wiley is unsuitable in this climate.

Correspondence

San Francisco, Cal., Jan. 23, 1908.

Editor of the Pacific Pharmacist, San Francisco, Cal.

Dear Sir: Your January editorial on "Scarcity of Drug Clerks" brings again before the pharmacist of the Pacific Coast the same subject that has been threshed out in the Eastern pharmaceutical press from time to time during the past ten years, to my knowledge. The same subject appeared at almost every convention of pharmacists gathered in every State of the Union, also at the last convention of the American Pharmaceutical Association, and more prominently at the convention of the National Association of Retail Druggists held at Chicago last fall. The consensus of opinion precluded the fact that the druggists themselves are to blame for the scarcity of good drug clerks. I therefore most emphatically take exception to this editorial for failing to obtain the drug clerks' statements first. Above all, the American people do like fair play, no matter whom it hurts, and every newspaper writer, before he puts in print matters of such importance, will have the statements of both sides of the controversy.

You further write and expound a remedy. In so far as women are concerned, that experiment in the eyes of our teachers is only academic and has proved so far a failure. Compare statistics of women graduating during the 20 years past throughout the United States; you will find a small percentage following pharmacy as a living. Cupid seals their faith—a path where sensible women find more comfort than behind a prescription counter. No one has any objection to boys of the right calibre and spunk to enter our profession. The trouble is that such boys find more remunerative positions in other trades.

A great injustice is therefore being done by your editorial to the majority of drug clerks, following pharmacy as a devoted profession. In voicing the sentiments of my fellow drug clerks, I protest to the remarks of a few proprietors, who are unwilling to pay living wages, and, being compelled to pay prevailing rates under protest, make life very miserable for good drug clerks whom they employ, who seek a posi-

tion where they should receive a gentleman's treatment and recognition.

A newspaper office is a bad place for a complaint office, and therefore I would ask your troubled readers to call upon the employment office of the Drug Clerks' Association of California, with permanent offices at 1422 Steiner Street, Phone West 8093, or see the chairman of that employment office daily between the hours of 10 and 11 a. m., and he will attend to their wants accordingly.

The above Association has a Complaint Department for such troubled proprietors, and I would say that none of our members in good standing are addicted to drugs or intemperance. I would advise your readers to employ only members of this Association. To show you the unfairness of just such complaints, a local druggist in a Chicago drug magazine complained not long ago that it is impossible for him to get the right drug clerk. The best man he ever had, so he claims, was addicted to liquor. He further says that the clerk he wants must have practiced pharmacy in Germany, Italy, France, and Mexico, and be a graduate of an American College of Pharmacy, registered by the State Board of Pharmacy of California, and I suppose he must be willing to work for \$60.00 per month. Such men in this community are few and are getting twice the prevailing salary, and when this proprietor told the drug world that his last clerk was a drunkard, he told a falsehood, because those few polyglots are known in this community as temperate gentlemen and are an honor to the local association of drug clerks.

I hope you will give this letter publicity deserved. I beg to remain,

Respectfully yours,

I. B. KRASBERGER, Ph. G.

440 Broadway.

Our correspondent has entirely misapprehended the feeling that prompted the writing of the item referred to. The whole article was merely a resumé of the situation in regard to clerks. After quoting remarks made to the writer by several proprietors,

and suggestions that have been made by correspondents of Eastern pharmaceutical journals, the article concludes as follows:

"Another idea has been advanced by Mr. Otto E. Bruder in the **Druggists' Circular**, who suggests as a panacea that proprietors pay more salary, require shorter hours and give such good treatment that clerks will like their employers and want to work for them. Here is what he says: 'Do something that your clerk will REALLY like you, and there will be no scarcity of clerks, neither will your clerk be in any hurry to enter the ranks of the proprietors.' This reminds us of the old English song, 'We May Be 'Appy Yet.'"

Our thought was that if good clerks were considerately treated in every respect, personal as well as financial, and Mr. Bruder's ideal could be realized, the remedy for the scarcity of drug clerks would practically be found.

There was in the mind of the writer no thought of the California Drug Clerks' Association, or any other association of drug clerks. Our correspondent says that none of the members of this Association in good standing are addicted to drugs or intemperance. We are glad to give his statement all the publicity we can. The Association is doing a good thing in tabooing such men. Let the good work go on until every drug clerk will quit the drug business when he ceases to maintain sober habits.

ANENT MUSHROOM POISONING

Chicago, Nov. 13, 1907.

Dr. Albert Schneider,
San Francisco, Cal.

Dear Dr. Schneider:

Yours of the 2d received and read with interest. Thank you for your kindness. In the experiments I have made in regard to pure muscarine I have found great difficulty indeed in

securing the effect of the remedy because it is so very rapidly eliminated. It must certainly be an enormous dose of this which causes death, and as this is the active principle in the fly-amanita, and as atropine is a much more powerful agent than muscarine, one would think that there should not be a great deal of danger from this fungus, if atropine were given in sufficient doses to counteract the muscarine effect and the patient was kept up at the same time. At least that was my experience when poisoned by the fly-amanita; one or two moderate doses of atropine completely neutralized the muscarine symptoms and in a few hours I was back at my desk. With the amanita phalloides it is altogether another matter. I have watched this subject for years, and have not yet heard of any fatal case of mushroom poisoning treated intelligently by atropine, except from the phalloid amanita. Personally I am very fond of mushrooms, having taken the third degree. In the first you eat only mushrooms that you have learned to recognize botanically; in the second you eat of any which you do not recognize as among the poisonous varieties, and in the third, after personal experience, you return to the position occupied in the first degree. I am sorry you do not eat mushrooms, but since you do not know what you miss it may be all right. The proper variety, properly cooked and served forms one of the most delicious dishes that can be placed before a hungry mortal. With regards,

Yours very truly,

W. F. WAUGH, M. D.

Substitution

"You're rather a young man to be left in charge of a drug store," said the fussy old gentleman. "Have you any diploma?" "Why-er-no, sir," replied the drug clerk, "but we have a preparation of our own that's just as good."—**Philadelphia Press.**

Deaths

NICHOLAS SENN

On January 2, 1908, there passed away one of the most brilliant medical authorities the world has known. Nicholas Senn was born at Buchs in Switzerland, October 31, 1844. He came to Ashford, Wisconsin, in 1853. He graduated from the Chicago Medical College in 1868. He took graduate work at the University of Munich, Bavaria, graduating in 1878, and since that time specialized in surgery, being the author of several works on surgery, especially gun-shot wounds of the abdomen. He was Surgeon General of Wisconsin, and Surgeon General of the Illinois National Guard during the Spanish-American war. He was Professor of Surgical Pathology at the College of Physicians and Surgeons of Chicago, where the writer of this sketch was one of his students. He was, until the time of his death, Professor of Military Surgery at Rush Medical College, Chicago. He was the U. S. delegate to the International Medical Congresses at Berlin in 1890, Moscow in 1897, Madrid in 1903, and Lisbon in 1907, and the International Red Cross Conference at St. Petersburg in 1901.

Dr. Senn traveled extensively abroad and was a most interesting writer on travels. He was a most scholarly as well as entertaining lecturer. He was pre-eminently successful as a surgeon, and some of his operations have become notable in surgical annals.

Dr. Senn was of fine appearance, and his gentlemanly demeanor and kind and yet dignified manner made him respected and beloved by all with whom he came in contact. He was always

treated with the greatest respect and listened to with wrapt attention by medical students, which can be said of but few lecturers in medical colleges.

Dr. Senn was never more active than just prior to his death, and it is a great loss to the world that he was not permitted to live longer. Medical science should have had at least twenty years more of his effort.

SIR ALFRED GARROD

By the death of Sir Alfred Baring Garrod, which took place on the 28th of November, in his eighty-ninth year, one of the most notable teachers of the nineteenth century has passed away. To those who were students in his most active period he will be best remembered by his work on *Materia Medica and Therapeutics*.

He graduated as M.D. at the London University in 1843, and became a Fellow of the Royal College of Physicians in 1856. At King's College Hospital he was appointed Professor of *Materia Medica and Therapeutics*. He was subsequently Physician Extraordinary to her late Majesty Queen Victoria, also a Vice-President of the Royal College of Physicians of London. In 1891 he received the Moxon Gold Medal, awarded by the college for research in clinical medicine. Among his many literary contributions are "Researches on the Pathological Condition of the Blood in Cholera," "A New and Successful Mode of Treating Acute Rheumatism," "A New View of the Formation of Uric Acid in the Animal Body," and "On the Value of Guaiacum in Relieving and Preventing Gouty Attacks."

Formulas

CHILLY AND WET WEATHER DRINKS*

* The following formulæ are taken from the "Western Druggist."

Among the more popular formulas for cold weather fountain beverages are the following:

Hot Oyster Malt

Malted milk, oyster bouillon extract, of each 2 tablespoonfuls; hot water, to fill mug. Stir well while adding the hot water to make the mixture smooth. Season with celery salt and serve with graham wafers. If desired, a spoonful of whipped cream may be added.

Turkish Punch

Yolk of one egg.

Grape juice 1 ounce

Lemon juice 2 drams

Powdered sugar 2 teaspoonfuls

Mix well together; add the hot water, top off with whipped cream, and serve with nutmeg and cinnamon.

Hot Chocolate

Here is the most delicious way of making it. It is absolutely the only way of fully bringing out that rich chocolate flavor:

American powdered cocoa..1 pound

Sugar 1 pound

Milk 1 gallon

Water ½ gallon

Vanilla extract ½ ounce

Salt ¼ even teaspoonful

Boil all the milk. Put cocoa into another vessel, add a half gallon of the hot boiled milk and stir until cocoa is thoroughly dissolved. Put over the fire and boil five minutes, stirring constantly. Take off the fire and mix with rest of boiled milk, add the salt and half gallon of boiling water and the vanilla extract; then, without further cooking, pour into inside can of hot soda apparatus to keep hot, and dispense as a finished drink in a china cup, topped with whipped cream. Vary

quantity of ingredients according to taste, but never change from this method of cooking and serving.

Hot Cream Coffee

Coffee syrup 2 ounces

Vanilla syrup ½ ounce

Warm cream 1 ounce

Hot water to fill mug.

Hot Lactated Beef

Aromatic extract of beef.....

.....1 teaspoonful

Fresh cream 1 teaspoonful

Extract of celery.....1 dash

Hot water 1 cupful

Season with pepper and salt.

Double Bouillon

Extract of beef.....½ ounce

Extract tomato bouillon...1 ounce

Place in cup, fill with hot milk and serve with graham wafers salt and pepper.

Clam Bouillon

Extract of clam bouillon.1 fl. ounce

Prepared milk 2 fl. drs.

Extract of aromatic herbs..5 drops

Extract of white pepper....5 drops

Hot water 1 cupful

Hot Mint Julep

Milk 2 ounces

Essence of mint.....10 drops

Sugar 2 teaspoonfuls

Fill mug with hot water, top with whipped cream and serve with nutmeg.

Hot Liquid Lunches

This name has been very appropriately applied to egg malted milk, which may either be served with coffee or chocolate. Pour your syrup into a twelve-ounce glass and if coffee syrup be used add a small quantity of the extract; then break in your egg, add a little sweet cream and two heaping ice cream soda spoons full of malted milk, shake same as in preparing any egg drink, then drain into a clean glass and fill rapidly with boiling water. Always have a spoon in the glass to prevent the glass from cracking.

Hot Tea

Few druggists have as yet served this beverage at the fountain, and yet it is both profitable and in goodly demand. Many like a cup at times when other things fail to satisfy. Tea may be served in several ways. Regarding the kind of tea to serve, I would say that there are several varieties that are good—you can without any great outlay keep two or three of the leading ones, but never use cheap teas at the fountain. The proper, the best and the most satisfactory way is to have individual teapots, and into these place the tea, filling with boiling water when ordered. Let it stand a few moments, then serve in the pot. The usual price is ten cents, but you can serve it at a profit for five cents.

Hot Tea from Extracts

A strong fresh extract of tea can be made by macerating it in boiling water in a closely covered dish set where it will keep warm, but not where it can boil. When the tea is exhausted, strain and keep in a cool place. A small quantity of the extract is sufficient for a cup of tea. Where you so desire you can purchase tea extract all ready for use.

Tea may be served plain, with sugar, milk or cream or both sugar and milk, just as your customer desires. Nearly every one has a different way in which he likes his tea. Nearly every one likes tea just a little different from everybody else, and it is for this reason that I recommend the first method. It is true that it gives a trifle more work, but it also gives a trifle more satisfaction.

Hot Turkish Tea

This is prepared by simply using orange syrup in the place of sugar to sweeten a cup of tea and serve with cream.

Hot Russian Tea

This is made by serving without milk, putting a slice of lemon in the cup.

Hot Lime Juice

Into a mug draw an ounce of lemon syrup and one-fourth of an ounce of lime juice and fill with hot water.

Use of Crackers and Cakes

Crackers of some kind should invariably be served with all bouillons and similar drinks. These can be secured in quite a variety, and if your trade will warrant it, it is well to have three or four to give your patrons a choice. Vanilla cakes, five o'clock teas or other sweet crackers should be served with chocolate, coffee, etc. Crackers may be served with all drinks at small fountains where trade does not warrant both, but sweet crackers should never be served with bouillons. Either may be served with egg drinks. A profitable business may often be done by serving dainty portions of assorted crackers at five cents a portion. Two crackers, three the most, are all you need serve with a drink. If you keep crackers for sale you will find some people who would like them to eat with ice cream and sundaes.

Joel's Jolts

The Committee Chairman.
You are a chairman all right!
What you need is a footman
To give you a few swift ones,
So that you will prefer to stand up
And hustle.
Got an idea that you
Are sort of an artist's model?
Not by numerous times!
You were put on that committee
To lead it,
And to lead it on a trot, at that,
Get your pace!
Or back to the stall for yours.

—Pharm. Era.

BOOK NOTICES AND REVIEWS

Outlines of Physiology, by Edward Groves Jones, A. B., M. D., Professor of Surgery in Atlanta School of Medicine, and Robert Grier Stephens, A. B., M. D., Instructor in Physiology in the Atlanta School of Medicine. Second edition, revised; 107 illustrations, 383 pages. Published by P. Blakiston's Son & Co., Philadelphia.

This little volume, which has already enjoyed a good sale, has been revised and brought up to date by Dr. Robert G. Stephens. Contrary to the usual custom in revising books, this volume has been made smaller. However, the essential and important facts have all been retained.

The introduction and the chapters on Circulation and on the Chemical Constituents of the Body have been entirely rewritten. A new chapter entitled "The Blood" has been inserted as a forerunner to the chapter on the Circulation. There are some pedagogical reasons favoring this change.

There are numerous minor changes throughout the book, mostly corrections of slight errors which are liable to creep into a first edition.

The book, which is already a favorite text, especially in Colleges of Pharmacy, will doubtless continue to remain a favorite.

H. B. C.

The Microscopy of Vegetable Foods, by Andrew L. Winton, Ph. D., of the Analytical Laboratory of the Connecticut Agricultural Experiment Station, Instructor in Proximate Organic Analysis in the Sheffield Scientific School of Yale University, with the collaboration of Dr. Joseph Moeller, Professor of Pharmacology and head of the Pharmacological Institute of the University of Graz; 589 illustrations. Price, cloth bound, \$7.50. Published by John Wiley & Sons, New York.

This is one of the most excellent books we have had the pleasure of reviewing. It contains over 700 pages, with abundance of illustrations, the execution of which is rarely equaled and not excelled. The illustrations are certainly a great credit to the authors and publishers.

The volume is prepared with special refer-

ence to the detection of adulteration and the diagnosis of mixtures. It covers practically the whole field of vegetable foods in a brief manner, and is necessarily confined largely to histology. The various authorities in this line of work are quoted freely. A comprehensive bibliography is given at the end of each chapter, a thing which few books do. This alone makes the book an extremely valuable one for scientific and practical use. Not only the diagnosis, but the differential diagnosis is given for each class.

Due credit is given other authors whose data and illustrations have been copied. Some special analytical keys are provided. Upon the whole, the book is one of the best which we have seen upon the subject, and one of great value.

Mulford's Bulletin No. 2 on Tuberculin and Tuberculin Therapy is a most interesting epitome of the subject. It is regretted that the name of the author is not given.

The pamphlet deals with the action of tuberculin, its diagnostic value, etc. Calmette's ophthalmo-reaction is fully and clearly explained. The therapeutic uses of tuberculin are fully explained.

The paper is authoritative, and is worthy of the careful consideration of physicians and pharmacists.

A. S.

Plant Anatomy from the Standpoint of the Development and Functions of the Tissues, and Handbook of Microtechnic, by William Chase Stevens, Professor of Botany in the University of Kansas. It contains 350 pages and 136 illustrations, and is published by P. Blakiston's Son & Co.

Professor Stevens has under the above title brought together a vast fund of information which is of special interest to students of applied botany. The work is somewhat unique, in so closely associating gross and minute anatomy with physiology and ecology. The subject of histology is well presented from the scientific as well as pedagogical points of view. The book is apparently designed, all the way through, with the special needs of the student in view. One can easily see the successful teacher's methods constantly in evidence.

Special chapters are devoted to micro-

technic. The book is profusely illustrated. The cuts are well executed, a large number being original. Some critics might question the advisability of inserting so many of the purely pedagogical characters. Professor Stevens has doubtless found that laboratory teaching, if successful, requires much illustration.

The book as a whole is neatly put up and admirably adapted to the needs of pharmacy students. It is a credit alike to the author and publishers.

H. B. C.

Squibb's Materia Medica

The firm of E. R. Squibb & Sons are celebrating the jubilee of the establishment of their firm by the issuing of an elegant edition of "Squibb's Materia Medica." The frontispiece is an excellent half-tone of the late Dr. E. R. Squibb, the founder, which many pharmacists will be glad to keep. The work is both accurate and comprehensive, embracing the products of Squibb manufacture, consisting of a full line of U. S. P. and N. F. preparations, and many other medicinal chemicals and galenicals. In addition there is information regarding a large number of non-official new remedies now in use. The book will be useful to both doctor and druggist.

Merck's 1907 Index (third edition) 472 octavo pages. Cloth. Merck & Co., New York.

This is a compendium or encyclopedia for the chemist, pharmacist and physician. It gives the etymology and synonyms, preparations, the origin or source, chemical nature, properties, appearance, specific gravity, solubility, physiological effect, therapeutics, dose, mode of administration, etc., of drugs and their preparations. It is a most complete reference work. It is not a price list, and only the comparative values are indicated. Naturally in condensing such a mass of information in so small a space, the liberal use of abbreviations is absolutely necessary. The abbreviations are well chosen and their meaning is readily understood without referring to the table.

The Index has been brought up to date by adding the newest products. Another improvement over previous editions is the addition of the crude drugs. The work is necessary in every pharmacy.

Merck's Annual Report

We have received a copy of a new English edition of this valuable reference book.

In form and general scope it does not differ from the previous edition, but it is brought up to date in regard to the articles enumerated. It aims to present reliable, succinct information on the therapeutic and pharmaceutical chemistry of the present day. It describes the structure and therapeutical properties and uses of the more recent medicinal chemicals. New indications are given for many familiar products.

The work is of great value to the pharmacist at the prescription counter, as many items of information that are wanted quickly are here easily found.

Published in Darmstadt, and may be obtained of the American house of Merck & Co., University Place, New York City.

Bismuth Subnitrate, U. S. P.

The progress in the manufacture of medicinal chemicals is well illustrated in the perfecting of the bismuth salts.

It is not many years since the doctors and druggists were quite accustomed to an article which would suffer considerably by comparison with the bismuth subnitrate of today, for example, that of the Powers-Weightman-Rosengarten Company.

Their article is not only of a high standard of purity, white and bulky, but has the additional advantage of being tasteless—characteristics which make their brand almost distinctive and appeal to the most critical practitioner and pharmacist.

The San Francisco Fire "a Silent Salesman"

The first Eastern firm engaged in the manufacture of pharmaceuticals to have a full line of their goods in San Francisco after the fire was Eli Lilly & Co. of Indianapolis. They immediately shipped some carloads of their goods by express, and thus enabled pharmacists to supply demands for fluid extracts, elixirs, pills, extracts, etc., at a time when such goods of other makes were not obtainable. In this way many retailers who had never tried their preparations began to use them, and, finding them satisfactory, have continued their use ever since.

The result has been that the firm of Eli Lilly & Co. have done a phenomenal business here since the fire, and, as their goods are constantly going in favor, they found it necessary to greatly augment their forces on this Coast.

Drug News

SALE OF LIQUORS BY DRUGGISTS

The druggists of San Francisco have been served with notices by the Board of Police Commissioners to refrain from selling liquors without a permit from the Board for the carrying on of such business. As these permits can only be obtained after paying a license of \$500.00 per annum, the druggists at once discontinued the selling of liquors. The same notices were sent to grocers, and wholesale dealers.

As the aforesaid license was only intended to apply to such persons as kept saloons, the grocers and others interested interviewed the Board, and through their influence the Board of Supervisors have passed an amended liquor ordinance to the effect that the license will be imposed only on "persons, firms or corporations selling or furnishing spirituous, malt or fermented liquors or wines in less quantity than one quart, and on those persons, firms or corporations who sell or furnish wines or liquors to be drunk on the premises."

A fine of not less than \$200 nor more than \$500, imprisonment not to exceed six months, or both fine and imprisonment, is fixed as the penalty of violation of the ordinance.

While this ordinance is not yet in force, it probably will be within a few days. In the mean time it is expected that same decision will be made either by the police commissioners, or by another amendment to the ordinance, defining what is meant by one quart. Most persons believe that the ordinary full-sized whisky or brandy bottle, measuring one-fifth of a gallon, is what is meant by the word "quart," but until authority has been given on this sub-

ject, it is not safe to sell less than 32 fluid ounces at a time.

The Washington State Board of Pharmacy held its regular quarterly examination in Bellingham January 20, 21 and 22 in the County Superintendent's office in the Court-house. The principal business was the examination of candidates to test their qualifications for pharmacists. Other matters of importance came up in regard to some drug stores in the State that do not have registered pharmacists, and other violations of the pharmacy laws. The members of the board are: L. L. Tallman, Walla Walla; J. W. McArthur, Spokane; Thomas W. Lough, Fremont Station, Seattle; F. P. Offerman, Bellingham; P. Jensen, secretary, Tacoma.

An ordinance was introduced by the City Council of Pasadena which prohibits the distribution of samples of patented medicines or compounds and providing a penalty of a fine in a sum not exceeding \$100 or imprisonment not exceeding 30 days in jail. Another ordinance introduced prohibits the playing of stringed instruments or other music in public places, which is destined to knock out street shows and fakirs.

Probably there is no manufacturing establishment in Contra Costa County which attracts so much attention from those who travel along the main line of the Southern Pacific Railroad as the works of the Peyton Chemical Company.

It was argued before Judge Carroll Cook of San Francisco that the city ordinance fixing the percentage of fats that pure milk must contain is invalid, because it is in conflict with the State law, passed at the last session of the Legislature. The city ordinance says milk must contain not less than 3.3 per cent of fats from January 1 to April 30, and 3.4 per cent of fats from May 1 to December 31 of each year. The State law adopted at the regular session last year says milk must contain not less than 3 per cent of milk fat.

That the Hawaiian waters produce sponges of good marketable quality has long been known. That they are as good as those produced anywhere, was demonstrated by the scientific men of the Albattross expedition some years ago. That they are produced there in considerable quantity is evidenced frequently. A considerable number of large, serviceable-sized sponges, gathered by Lee Todd, were sent to the Regents of the College of Agriculture. They made an exhibit that is convincing.

Drug trade interests are much gratified at the action of the Supreme Court of South Dakota in deciding that the pure food and drugs law of that State is not applicable to druggists. The law has been very generally criticised as a badly muddled piece of legislation, which practically regulated nothing and prohibited nothing, so far as drug products are concerned.

The Chinese physicians of the Northwest are very anxious to get gall stones and they are willing to pay the Carstens Packing Company extremely high prices for the small number it removes from livestock. What the Orientals do with the queer product is a mystery, not only to President Thomas Carstens of the company but also to the physicians of Tacoma.

California's new **pure food** and drugs law contains a weapon that will be used to give added satisfaction and delight to the wage earner and housewife in compelling short-weight merchants to give the full pound and measure to consumers. While the city has an ordinance concerning weights and measures, it does not require the baker, butcher and dealer in butter and other commodities to give sixteen ounces to the pound and two pints to the quart and so on down the line. Hundreds of complaints are made daily against the unscrupulous dealers who do not only shortweight the consumer, but give him thirteen and fourteen ounces to the "pound" of butter or bread and cake. This kind of merchandizing, coupled with the fact that pennies are not in use, gives the merchant two avenues of reaping a profit that could be divided with the consumer without giving distress to the merchant.

The druggists of Bakersfield and Kern have come to the conclusion that they are entitled to at least a part of a day off on Sunday and beginning with Sunday, February 2d, all the drug stores will be closed on Sunday afternoons and on Sunday evenings, except between 5 and 7 p. m.

They reason that from 9 in the morning to 1 p. m. and then a couple of hours in the evening will give their patrons plenty of time to make all necessary purchases, and as they are all of the same opinion, the new schedule of Sunday hours will be put into effect at once by all of them.

Safe-crackers made a desperate but ineffectual attempt to loot the safe of the Concord drug store at Concord, Cal., the early part of this month. Mr. A. F. Hyer, who has charge of the drug store, and whose apartments are up stairs, hearing a noise in the early hours of the morning, crept down stairs, carrying his trusty cannon on his shoulders, for the purpose of making a bold front. On arriving at the front door, however, the burglars politely requested him to go whence he came, which Mr. H. lost no time in doing. Arriving upstairs, at a safe distance from the burglars, he fired three shots from the aforesaid trusty cannon, thereby awakening the peaceful burghers from their slumbers, and at the same time adding speed to the departing burglars who were foiled in their attempt to effect a shortage of the filthy lucre in the prosperous town of Concord. A movement is now on foot to make Mr. Hyer Chief of Police of Concord.

The Antikamnia Chemical Co. has issued a very unique calendar for 1908. The subject is a freckle-faced youngster who apparently had just been to the dentist, or else in a street fight, for a good portion of his teeth are invisible. From his expression one would say that antikamnia relieved his pains.

The California Spray-Chemical Company of Watsonville has been launched and already is establishing a name for itself, backed by the reputation of its manufacturers.

Personals

C. Huyck, until recently in charge of the country sales of Langley & Michaels Company of this city, now occupies the position rendered vacant by the retirement of Mr. W. L. Pattiani. Mr. Huyck's familiarity with the business of the firm in whose employ he has been for about 25 years well fits him for the responsible and onerous position he now holds.

H. G. Ford, city salesman for Eli Lilly & Co., Los Angeles, has just returned from Indianapolis.

Coffin, Redington Company are moving into their new and beautiful store on the corner of Second and Stevenson Streets, where they will be glad to welcome their friends in a few days.

Mr. J. E. Anderson, of Cambria, mourns the loss of his wife, who died on the 29th of January. Our heartfelt sympathy is extended to Mr. Anderson and his family.

Bowman Drug Co., Oakland, gave their annual banquet at the Key Route Inn, this month, at which all of the employes from Oakland, East Oakland and Berkeley were present. There is no doubt but that a great deal of their success is due to the fact that they make their employes feel that they take an interest in their welfare.

J. W. Crouch and E. G. Fipps have bought the Red Cross Drug Store at Kelso, Washington, from Cash Demerest, and will continue to conduct it as a first-class pharmacy.

Ekman-Stow Company, of Oroville, have ordered a complete set of fixtures for their store. They are to be finished in mahogany, and when placed in position will make one of the handsomest drug stores in Northern California.

We regret to learn of the death of Orlando P. Willis of the firm of Willis & Martin Co., of Sacramento, one of the old-time druggists of Northern California. His many friends extend their sympathy to his family.

H. H. Eaton, pharmacist, formerly of the Oakland Clinic of Physicians and Surgeons, is now with the Public Drug Company, No. 336 East Market Street. The Public's prescription business has grown to such proportions that another pharmacist was necessary.

G. S. Badger, manager of the San Francisco office of H. K. Mulford & Co., recently paid us a professional call. Mr. Badger is well versed on his subject, and makes a good salesman.

Dr. W. D. Keating of Seattle was recently a guest of Dr. H. B. Carey. While here the doctor paid a visit to the professional departments of the University of California at the Affiliated Colleges.

Miss Grace Eddy, '04, of the Fulton Pharmacy, is taking a vacation at Forbestown, Cal.

David Olson, better known as "Ole Olson," of Fresno, who travels in the San Joaquin Valley for Langley & Michaels Co., was in the city a few days ago reporting a very prosperous business in the Valley. If anybody can get business, you just leave it to Ole to get it.

Mr. Charles Fabra, for many years with Leipnitz & Co., has just returned from Mexico, where he was engaged in business, intending to again make his home in San Francisco. His many friends will be glad to see him.

Serwe & Prien are now located in commodious quarters on First and Mission Streets, better than ever prepared to take care of their rapidly increasing business.

The **Sacramento** druggists report doing an exceedingly satisfactory business during the holidays in all lines, and the prospect for the coming spring trade is very flattering.

The **Stockton** druggists do not feel the recent financial flurry very much, as they report doing a very good business during the fall and winter.

Mr. Ralph R. Zane, the general representative in the West for Eli Lilly & Co., has just returned from the laboratory at Indianapolis, looking better than ever (if that could be possible) and having that satisfied smile (which won't come off), which is the natural result of a good conscience, good digestion, a prosperous year, and excellent prospects for 1908.

H. D. Stewart, Ph. C., '07, has been traveling with his wife in Mexico. They are now in El Paso, Texas, where they expect to remain. He reports prospects fairly bright.

Harry Tilford, city salesman in Oakland, Berkeley and Alameda, for Langley & Michaels Co., is contemplating matrimony. He is to be congratulated. Wonder why he keeps it so quiet?

F. I. Lackenbach, who is sojourning in beautiful Saratoga, incidentally building up a business for the Saratoga drug store, was in the city for a few days, looking fine and prosperous.

Mr. A. O. Schmidt, who conducted a drug store for twenty years at Baker and Fulton Streets, has just returned from Europe, looking in splendid health and buoyant spirits, and is about to engage in business in the Visitation Valley.

E. L. Smith of Visalia and **A. C. Tienken of Lindsay** have entered into a co-partnership to conduct a business in the two towns. We wish them success in their enterprise.

Mr. Conreid Strafron and **Dr. Carey**, who have successfully conducted what was known as the Strafron Drug Co., in Dallas, Ore., have dissolved partnership, Dr. Carey retiring.

David Kaplansky, who looks after Eli Lilly & Co.'s interest across the bay, has been seriously ill, but we are pleased to learn that he is convalescing, and will soon be in a position to call on his trade again. His many friends wish him a speedy recovery.

J. D. Guiss, formerly with Wm. S. Merrell & Co., is now looking out for the interest of Eli Lilly & Co., in Portland, Ore. Eli Lilly & Co. no doubt know a good thing when they see it.

The Wallace Drug Company of Wallace, Idaho, has leased the south half of the office of the Ebbley Investment Company for a term of years and workmen began today to make the necessary changes.

E. L. and W. O. Scholtz, prominent druggists of Denver, were in Portland to attend the funeral of their father, **Lewis Scholtz**, who died at his home, 314 Mill Street, as the result of ailments incident to old age. He was 81 years of age.

Dr. R. C. Yenney was appointed a committee at the meeting of the Portland Board of Health to make a thorough investigation of available space in the City Hall, where a city bacteriological and chemical laboratory may be installed. He was also instructed to make an estimate of the cost of such an institution.

Lawrence S. Perkins, a prosperous druggist and resident of Monmouth, Oregon, for the past 16 years, was found dead in his bed at his residence last night at 9 o'clock.

J. H. Jackson has just purchased the stock of the Ukiah drug store and intends to make it a first-class pharmacy.

Earnest Smith, the Visalia druggist, is going into the orange growing business on an extensive scale. Between his drug store and the orange groves we wonder if he has time to go fishing.

If you want to see a real swell drug store, you want to go to Antioch and take a look at the Modern Pharmacy owned by **W. M. Dunnigan**, and managed by **W. F. Fretwell**. Their stock is exceedingly well arranged, and they are doing a flourishing business.

Dr. C. L. Worrell has severed his connection with the Metcalf Pharmacy, Pasadena, and is now manager of the Sun Drug Co., in that town.

O. A. Mullinix is putting up a very handsome structure in Santa Ana, to accommodate his rapidly increasing trade.

J. T. McElree, of Garden Grove, has let a contract for a concrete building and will be occupied by him as soon as completed with a complete stock of drugs and sundries.

J. E. Rawlins's drug store at American Falls, Idaho, was recently destroyed by fire, entailing a loss of \$6,000, with an insurance of \$3,500.

Dr. Beauchamp, of Richland, Oregon, who has bought out the Long Creek Drug Company, arrived last month and has taken possession of the drug store.

L. B. Kinney and son **Clare** have purchased the University Drug store stock in Seattle, and will take possession at once.

The district attorney's office of Los Angeles has again announced that it is on the eve of inaugurating a strenuous pure food campaign. Watch out!

Improvements are being made in the store of the **A. R. Rowley Drug Company** of Santa Ana that will add materially to the convenience of the place.

Incorporation of the drug firm of **Charles H. Ward** of Pasadena was effected, with a capital of \$25,000, of which \$22,000 is subscribed. The incorporators are **Charles H. Ward**, **A. L. Hawkins**, and **C. L. Parsons**, who will act as president, secretary and treasurer respectively. The incorporators act as directors of the company, with **Mrs. C. H. Ward** and **Victor L. Ward**.

Wm. J. Morrison has severed his connection with the A. T. Hill drug store of La Grande, Ore., and left for North Powder, where he has purchased the Cash Drug Store, formerly owned by Dr. Clark E. Saunders.

Articles of incorporation have been filed for the Wilbur Drug Company, Snohomish, Wash., with a capital stock of \$10,000. The incorporators are: Lot Wilbur, Jennie Wilbur and Ralph E. Main.

Raymond G. Lindsay of San Francisco is now located in Turlock with Shadle, the druggist.

Harry Green, a graduate of the London College of Pharmacy, and a young man with a large experience, has accepted a position in W. W. W. Hunter's drug store in Madera.

E. A. Hall's drug store, Glendora, was burglarized recently. The robbers, evidently novices, broke open the back door and took nearly all the jewelry in stock.

L. H. Brown of Douglas and Thomas A. Whitehead of Bisbee, Ariz., have purchased the stock of the L. E. Mowers drug store and will open in the Brophy Building. Albert Byersdorfer will be the manager of the new store.

R. B. Aylesworth, of Aberdeen, arrived in North Yakima, Wash., to take charge of the prescription department for C. C. Case.

Patterson Block Pharmacy, Fresno, was recently incorporated with a capital stock of \$24,000 by O. S. Sholz, C. A. Cook and A. F. Purdy.

A. B. Chandler, who has built up a big business for Kirk, Geary & Co., of Sacramento, has been engaged by Eli Lilly & Co., of Indianapolis, to take charge of their trade in Seattle. The house is to be congratulated upon securing the services of so able a man.

Leroy Herndum, the wide-awake druggist of Gonzales, recently inaugurated a guessing contest, with a kodak as a prize. The result was that over 5,000 guesses were sent in, indicating that there are more ways than one to make business hum.

Roy R. Giffen has moved into the Odd Fellows' Building, in Fowler, having one of the best-equipped stores in the interior of the State. Mr. Giffen has spared no pains or expense in the equipment of the store. It not only speaks well of his enterprise, but also of the prosperity of the town.

Half-Moon Bay is exceptionally fortunate in having a pharmacy conducted by Dr. C. L. Morgan.

Charles McNulty, for many years with Parke, Davis & Co., has been added to the staff of the Eli Lilly & Co., and looks after their interests in this city.

L. C. Tibbitts, the druggist, is recovering from an attack of illness.

F. E. Hartsell, formerly with T. F. Laurin, of Astoria, Ore., is now with one of Oakland's branches of the Owl Drug Company.

C. R. Fitzell is now engaged in altering the arrangement of his place of business, at the corner of Third and F Streets, Eureka. At present the main entrance to the drug store is a double doorway on Third Street. This is to be cut out and a single door placed at the corner of Third and F, the space occupied by the doorway now to be utilized with the rest of the front for window display purposes. A 16-foot front will be built on the F Street side of the building, for a new double doorway and more display windows.

C. K. Smith, Inspector for the State Board of Pharmacy, is in Eureka on a tour of inspection of the drug stores. The inspector found that the local stores are observing the law in every particular. In some instances he found grocery stores carrying poison, which is contrary to law, and the drugs were confiscated.

A. Crosby of The Dalles, Oregon, is taking a vacation with his family.

W. J. Roaf has bought the interest of Partridge and Allis in the Pioneer Drug Store in North Yakima, Wash. Mr. Roaf was formerly the owner of that store, but sold it to the above-named gentlemen, prior to leaving for California.

Wm. E. Tuttle, the pioneer druggist of Albino, Ore., died this month. The sympathy of a host of friends is extended to the family.

W. B. Pixley, one of our pioneer druggists, died suddenly in this city on January 31st at the age of 77. Mr. Pixley was in business in Stockton many years since, and afterwards on Stockton Street, in this city.

Dr. C. H. Schmelz, Ph. G. '85, has been in poor health for some time. He is now at the Pottenger Sanatorium, Monrovia. He is reported to be improving.

Miss C. M. Roehr, Phar. B. Pharmacist in the University of California Hospital at the Affiliated Colleges, is giving a course of lectures on Materia Medica to the students in the Training School for Nurses connected with the hospital.

G. W. Peterson, the druggist of Rhyolite, Nev., has rented the building formerly occupied by the Cabinet saloon, on Golden Street, near Broadway, and will, in a few days, move his stock of drugs to the new place.

All the drug stores of San Pedro have agreed to a Sunday schedule of hours, and until further notice will close from 11:30 A. M. to 5:00 P. M., and remain open until 8:00 P. M., also for daily closing at 9:00 P. M., except Saturdays.

Manager Fred Ritter and R. H. Cunningham of the Lowell branch store of the Bissbee Drug Company, took the examination before the Arizona Territorial Board of Pharmacy.

A. T. Steiner, for a number of years one of the most popular druggists of Roseburg, Oregon, and a brother of R. E. L. Steiner, who has become Superintendent of the Insane Asylum, has disposed of his business and the opinion prevails that he will be associated in some way with his brother in connection with the asylum.

R. L. Janney of the Red Cross drug store, Santa Barbara, has one of the most unique windows ever seen in that city. Among the striking exhibits are seven diplomas and State certificates. They are registered pharmacist certificates in the States of California, Ohio, and Michigan; registered optometrist certificate in the State of California; two diplomas from Marietta College, Ohio, and one diploma from the University of Michigan. Among the interesting exhibits in the window is a pair of scales with a complete set of troy and diamond weights made before the Civil War, by Mr. Janney's father, who was a mathematical instrument maker. Mortars and pestles, a jar of leeches, retort stand, hot water bath, funnels and a miscellaneous lot of chemical apparatus make up a most unusual and attractive window.

Otto Van Webber, representing Langley & Michaels, is swamping his house with orders from the Coast line.

W. A. Pfeiffer, formerly with Stewart & Holmes, in Seattle, has purchased the Pacific Drug Store, at Leavenworth, Wash., and intends to make it a strictly high-class pharmacy.

Harry Harrold, the popular young member of the Young Drug Company of Petaluma, was wedded to Miss Ida Carr, a young lady of San Francisco. Our heartiest congratulations to the happy couple.

Palouse Pharmacy, in Washington, was damaged by fire, which partially destroyed the building in which it was located.

WOMEN'S PHARMACEUTICAL ASSOCIATION

The regular monthly meeting was held Friday evening, January 24th.

The following papers were read: "A Review of the Criticisms of the National Formulary," by Clarissa M. Roehr; "Filters and Filtering Papers," by Mabelle E. Merriam; "The Marking of Goods," by Mrs. Fayette Philip.

Miss Evans Montgomery, a graduate of the Oklahoma College of Pharmacy, was admitted to membership.

The next meeting will be held Friday evening, February 28th, 8 o'clock, at the California College of Pharmacy.

The new certificates of membership in the Alumni Association are now ready. Those who lost their certificates in the great fire may recover new ones by applying to the Secretary, Miss C. M. Roehr, Affiliated Colleges, S. F. The junior class is anxiously awaiting the botanical excursions which Dr. Carey has promised.

The Phi Chi Fraternity smoker was held Monday evening, January 21st, at the home of R. R. Lorentz, '09, 2227 Fulton Street, city.

The rooms were appropriately decorated for the occasion, and an orchestra furnished the musical programme. The Phi Chi generosity prevailed, as it always does, and there was an abundance of good things to eat and drink. Those fortunate enough to receive a bid will long remember the smoker at the home of Brother Lorentz. Among those who attended were the following: Dr. H. M. Simmons, '95; F. W. Nish, '01; E. H. Nohrden, '05; D. L. Staniford, '09; L. Fairchild, '09; E. Komsthoeft, '09; G. A. Schoen, '09; C. J. Sexton, D. D. S., '07; R. Chatten, '09; D. W. Ostrom, '09; E. E. Bourne, '09; R. R. Lorentz, '09; J. E. Parson, '08; F. C. Lang, '07; W. C. Johnson, '09; F. J. Belz, '08; W. G. Triebel, '08; J. A. Arkin, '08; F. A. Hund, '07; A. P. Komsthoeft, '07; Roy Staniford, '09.

Salesmen School

Eli Lilly & Co., Indianapolis, Ind., have just closed their semi-annual Salesmen School. This firm requires all of their salesmen to visit their laboratory and attend their session of school, at least once a year, regardless of length of service of the salesman. The salesmen are taken through each and every department of their immense plant, and every process thoroughly explained to them. They are then required to attend a course of lectures or instructions from the heads of each department. After being taken through every branch, from the purchasing of crude drugs to the finished product, they are taken through the business department and instructed in all its branches, including lectures on their business policy. The manager of their branch houses and branch house employes are also required to attend their school. Those in attendance from the Western and Northern States at the last session were: Harry G. Ford, Los Angeles, Cal.; J. D. Guiss, Portland, Ore.; Ralph Zane, general representative, San Francisco; H. E. Peterson, North Dakota; O. E. Dahly, Northern Minnesota.

Dr. A. D. Barnett of Guilford, Mo., says of H. M. C. Tablets: "I find your H. M. C. hypnotic anæsthetic just what I have wanted for some time, and will keep a supply always on hand. In miscarriage where the placenta must be removed under anæsthesia they are the very thing, and relieve the operator of the worry of chloroform or ether. I believe them superior to the morphine and atropine hypodermic as more lasting and certain in effect."

WANTED—A partner to take half interest in a good paying drug business. Address A. B., or call, at this office.

Graduate pharmacist, registered in this State, long years' experience, best of references, speaking German and Spanish, wants a position. Address, F., this office.

For Sale.—Drug store in Fallbrook, San Diego County, California. Will sell stock and fixtures at invoice. Excellent location for physician and pharmacist. Address, Freeman Drug Co., Fallbrook, Cal.

For Sale.—A first-class drug store within 60 miles of San Francisco. A bargain for a good man. Best of reasons for selling. Address, X. Y. Z., care of **Pacific Pharmacist**.

For Sale.—Good paying drug business, about 100 miles from San Francisco. Clean stock and fixtures at invoice (about \$3,500.00). Sales last year over \$10,000. Apply Langley & Michaels Co.

Wanted.—A position by a lady druggist, fully registered, with good references. Bay cities preferred. Address, Evans Montgomery, No. 675½ Twenty-third St., Oakland, Cal.

An experienced pharmacist, well acquainted in the city, desires a position. Strictly temperate. First-class references given. Address this office.

"Doctor, I want to thank you for your valuable medicine."

"It helped you, did it?" asked the doctor; very much pleased.

"It helped me wonderfully."

"How many bottles did you find it necessary to take?"

"Oh, I didn't take any of it. My uncle took one bottle, and I am his sole heir.—Ex.

For special offer of Ye-ti-va-Remedy, for headaches, neuralgia, and nervousness, write to J. G. Munson of San Jose. Ye-ti-va is sold by all wholesalers.

WANTED—A position; lady, registered as licentiate in California and Oakla.; prefers some of the bay cities; good references. Address 1000 Central Ave., Alameda, Cal.

Boxes, Labels
Cartons, Etc.

Order by Mail Now
From
F. C. FELTER
228 Lumber Exchange Building
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Representing Pictorial Printing Co., Aurora and Chicago, Ill.

In addition to our full line of
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And any Druggist who desires to put his push and energy
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 package, conscience-quality, and on every label
 that taste and neatness that half sell
 the goods, should write for
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HENRY K. WAMPOLE & COMPANY

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Morphine Sulphate, Flakes or Cubes
 Quinine Sulphate and Other Salts
 Codeine. Cocaine. Strychnine
 Acid Tannic. Iodoform. Thymol Iodide
 Sodium Salicylate. Iodine Resublimed
 Mercurials. Santonin. Salicin. Salol
 Ether. Collodion. Chloroform

Bismuth Subnitrate, Bulky, Tasteless
 Sodium Phosphate, Pure, Granular
 In Bottles, Cans, or Cartons
 Gold and Platinum Chlorides
 Silver Nitrate and Other Salts
 C. P. Acids—Sulphuric, Hydrochloric
 Nitric and Acetic

POTASSIUM IODIDE, CRYST. OR GRANULAR

COMPLETE LIST ON APPLICATION

SPECIFY P-W-R ON YOUR ORDERS

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

The Market

There have been but few changes during the past month worthy of note, and prices as a rule have been well sustained. Articles noted elsewhere as "declined" and "advanced" are unimportant from the dealers' standpoint, as the fluctuations are slight.

Quinine and morphine remain steady at previous quotations, while we note a decline in opium. Manufacturers claim that morphine did not advance in proportion to high price of opium prevailing recently and that prices will adjust themselves on decline of opium.

The essential oil market is firm, with an upward tendency. Herbs, barks and roots have advanced generally during the past year, and a decline is not in sight.

The advices of advance in price of crude camphor abroad have not as yet affected the refined market.

Glycerin remains as per last quotations, although there is an increased demand for crude by dynamite manufacturers.

Advanced	Declined
Oil Cubebs	Acid Camphoric
Oil Spearmint	Acid Citric
Root Dandelion	Acid Oxalic
Root Goldenseal	Acid Pyrogallie
Seed Caraway	Blue Vitriol
Seed Quince	Cocaine
Silver Nitrate	Ether, Nitrous conc.
Silver Caustic	Iron Citrate
Menthol	Iron Pyrophosphate
	Opium
	Potassium Citrate
	Sodium Citrate
	Santonin
	Thymol

ACETANILID. N. Y. Q., 1-lb. cart. incl..lb	38
Powdr., N. Y. Q., 1-lb. cart. incl.....lb	38
ACETONE. Technical.....lb	45
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....lb	20
5-lb bottles, ".....lb	15
Glacial, M. C. W. lb	44

Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure.....lb	14
Arsenous, Lumps, Pure lb	24
Arsenous, Powd., Pure, M. C. W.....lb	24
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	57
Benzoic, from Toluol, M. C. W.....oz	13
Benzoic, True from Benzoin.....lb	35-1 50
Benzoic, from Toluene, 1-oz. cartons....oz	13
Benzoic, from Toluene, M. C. W.....lb	55-65
Boracic lb	16-18
Boracic, powd., M. C. W.....lb	18
Boracic, im. powd., M.C.W., 1-lb cart. incl.lb	27
Boracic, Squibb's, 1-lb bottle.....lb	45
Boric, H. P. lb	27
Boric, powd., pure lb	20
Boric, Impalp., powd. lb	27
Butyric, 100% oz	29
Butyric, H. P. lb	2 14
Cacodylic, 1/8 oz	4 00
Camphoric oz	40
Carbolic, Calvert's No. 1.....lb	2 00
Carbolic, Calvert's No. 2.....lb	1 50
Carbolic, 1-lb tin, M.C.W., gilt label....lb	28
Carbolic, M.C.W., 5-lb can, gilt label....lb	25
Carbolic, M.C.W., 10-lb can, gilt label....lb	24
Carbolic, M.C.W., 25-lb can, gilt label....lb	22
Carbolic, Loose, crys. lb	70
Carbolic, Solution, 1-lb. bot.....doz	2 50
Carbolic, Crude gal	40-50
Chromic, 1-oz vials oz	15
Chrysophanic, true, M. C. W., 1-oz vials..oz	39
Cinnamic, P. W. R.....oz	39
Citric, crys. lb	55-58
Gallic, 1-oz cartons oz	11
Gallic lb	70
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34
Hydrocyanic, 1-oz vials, U.S.P., M.C.W..oz	10
Hydriodic (Sp. gr. 1.50).....oz	42
Hydriodic (Sp. gr. 1.70).....oz	52
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39
Hydrocyanic, U. S. P., Scheele's.....oz	35
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30
Hydrofluoric, 1/2s, g. p. bots. incl. " ..lb	1 80
Hydrofluoric, 1/4s, g. p. bots. incl. " ..lb	2 25
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19
Lactic, conc., 1-oz vials, M. C. W.....oz	12
Lactic, conc., 1s lb	79
Lactic, dilute, 1-oz vials, M. C. W.....oz	8
Muriatic, carboys lb	3 1/4
Muriatic, 6-lb bots.....each	75
Muriatic, C. P., 6-lb bots.....lb	22
Muriatic, C. P., 1-lb bots.....lb	38
Nitric, carboys. lb	8
Nitric, 7-lb bots.....ea	1 10
Nitric, C. P., 7-lb bots.....lb	22
Nitric, 1-lb bots. lb	40
Nitro-Muriatic lb	40

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Nitrous, fuming	lb	65	Hydrated, pure, M. C. W.....	lb	79
Oxalic.	lb	14-16	Metallic, M. C. W.....	oz	17
Oxalic, chem. pure, M. C. W.....	lb	30	Sulphate, pure, M. C. W.....	lb	25-29
Phosphoric, glacial	lb	64	ALUMNOL	oz	60
Phosphoric, syrupy (85%)	lb	55	AMIDOL. 1-oz. can	oz	65
Phosphoric, diluted, M. C. W.....	lb	25	AMMONIA. Spirits of	lb	75
Phosphoric, M. C. W., U. S. P., 50%..	lb	40	Spirits of, aromatic	lb	75
Phosphoric, glacial, 1-oz vials.....	oz	11	Aqua, 26 deg., 1-lb. bot.....	lb	20
Phosphoric, glacial, 1s, M. C. W.....	lb	64	Aqua, 26 deg., 4-lb bot.....	lb	16
Picric	lb	60-70	Aqua, 26 deg., 5 gal. can.....	lb	11
Pyrogallic, Resublimated, M. C. W.....	oz	27	Aqua, 26 deg., carboy.....	lb	9½
Pyrogallic, 1-lb cans, W. C. W.....	lb	2 35	Aqua, Washing, 5-gal. can.....	gal	50
Pyrogallic, ½-lb cans, M. C. W.....	lb	2 45	AMMONIUM. Acetate, cryst., M. C. W...oz		14
Pyrogallic, ¼-lb cans, M. C. W.....	lb	2 55	Arsenate, 1-oz vials, M. C. W.....oz		22
Pyroligneous	gal	40	Benzoate, 1-oz vials, M. C. W.....oz		14
Salicylic, 1-lb cartons	lb	46	Benzoate, M. C. W.	lb	1 14
Salicylic, from Oil Wintergreen.....oz		44	Bichromate, 1-oz vials, M. C. W.....oz		14
Salicylic, Amorph.	lb	46	Bromide, 1-oz vials, M. C. W.....oz		10
Succinic, oz bottles	oz	74	Bromide, M. C. W.....	lb	34
Sulphuric, Aromatic	lb	75	Carbonate.	lb	15-18
Sulphuric, carboys	lb	2-2¼	Carbonate, powdered	lb	20
Sulphuric, 9-lb bottles	each	1 00	Chloride, see "Muriate."		
Sulphuric, C. P., 9-lb. bottles.....	lb	22	Citrate. 1-oz. vials, M. C. W.....oz		15
Sulphuric, C. P., 1-lb bottles.....	lb	38	Hypophosphite, 1-oz vials, M. C. W.....oz		21
Sulphurous, U. S. P., solution.....	lb	25	Hypophosphite, M. C. W.	lb	1 70
Tannic, U. S. P., M. C. W.....	lb	85-90	Iodide, 1-oz. vials, M. C. W.....oz		38
Tannic, P. W. R.....	lb	1 15	Muriate, lump.	lb	14-16
Tartaric, crystallized	lb	39-45	Muriate, gran.	lb	10-12
Tartaric, powdered	lb	39-45	Muriate, gran., pure, 1-lb cartons.....	lb	20
Tri-chlor-acetic	oz	32	Muriate, powdered, pure.....	lb	19
Valerianic	oz	20	Muriate, Po	lb	17
ACONITINE. Amorphous	dr	1 40	Muriate, Po., Squibb's	lb	35
Cryst.	dr	1 40	Nitrate	lb	44
ADAPES LANAE. B. P.	lb	35	Oxalate	lb	52
AGARIC. White.	lb	45	Phosphate	lb	84
ALBOLINE.	lb	50	Salicylate	lb	1 10
5-lbs	lb	45	Salicylate	oz	13
Liquid	lb	50	Succinate	oz	1 00
Liquid, 5-lbs	lb	45	Sulphate, com'l	lb	12
AGURIN	oz	1 70	Sulphate, C. P.	oz	29
ALBUMEN. Egg.	lb	1 45	Sulpho Cyanate, pure	oz	10
ALCOHOL. Absolute.	qt	1 00	Valerianate, cryst., 1-oz vials.....oz		24
94%, 10-gal, case	gal	2 93	Valerianate, cryst.	lb	1 75
94%, 5-gal. case	gal	2 98	AMMONOL	oz	1 05
Denatured, 5-gal. can.....	gal	70	AMYL. Acetate	lb	79
Wood, 5-gal. case.	gal	75	Butyrate, M. C. W.	oz	30
Wood, Columbian Spirits, 5 gal. in case.gal		1 02	Nitrite	oz	29
Wood, Columbian Spirits, barrels.....gal		85	Valerianate, M. C. W.	lb	2 59
Wood, Columbian Spirits, ½ barrels....gal		95	ANNATTO. Roll	lb	60
Cologne Spirits, *5 cents advance over price of Alcohol.			ANODYNE. Hoffman's, 1-lb bottle.....	lb	75
ALDEHYDE. Conct.	oz	25	ANTHRASOL	oz	60
ALLSPICE.	lb	17	ANTIFEBRIN	oz	17
Powdered	lb	20	ANTI-KAMNIA and its combinations.....oz		1 00
ALMOND MEAL.	lb	45	10-oz lots for \$9.25; 25-oz for \$22.80		
ALMONDS. Bitter, shelled.	lb	45	Tablets, Vest Pocket	doz	1 75
Sweet, shelled.	lb	45	Tablets, Vest Pocket, 1 gross, 5% off.		
ALOIN. 1-oz vials	oz	16	ANTIMONY. Black, powdered, pure.....	lb	15
ALUM., Ammonio-Ferric, M. C. W.	lb	34	Black, powdered, commercial	lb	10
Chrome	lb	21	Chloride, cryst., 1-oz vials.....oz		22
Burnt	lb	15	Chloride, sol. (Butter of)	lb	39
Ground	lb	7-9	Oxysulphuret (Kermes Mineral)	lb	1 00
Lump.	lb	5-8	Potassium Tartrate, M. C. W.....	lb	45
Powdered.	lb	7-9	Sulphuret, precipitated	lb	92
ALUMINUM. Aceto-Tartrate, M. C. W...oz		20	ANTINOSINE	oz	2 10
Bromide, M. C. W.....	oz	29	ANTIPYRIN. Knorr's	oz	35
Chloride, M. C. W.....	lb	79	New	oz	25
Chloride, M. C. W.....	oz	14	APIOL. Fluid Green	oz	37

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APOLSYIN. S. & G. oz	65	Canella, powdered lb	35
APOMORPHINE. Hydrochlor. A m o r.,		Cascara, Sagrada. lb	18
1/8-oz vial oz	3 50	Cascara, Sagrada, powdered. lb	20
Mur. cryst. oz	8 50	Cascarilla lb	25
Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	4 00	Cascarilla, powdered lb	30
ARISTOL oz	1 80	Cassia. lb	22
ARGOLS. Red lb	15	Cassia, powdered lb	25
Red, powdered lb	20	Cinchona, red. lb	45-50
ARGYROL oz	1 50	Cinchona, red powdered. lb	45-50
ARROWROOT. St. Vincent.....lb	18-20	Cinnamon, Ceylon. lb	40 50
Taylor's Bermuda, 1/4s and 1/2s.....lb	35	Cinnamon, Ceylon, powdered. lb	40-50
Taylor's, Bermuda, bulk lb	35	Cotton Root, powdered. lb	35
ARSENIC. Bromide, 1-oz vials, M. C. W.oz	27	Cotton Root, pressed, 1-lb.....lb	35
Chloride, sol., M. C. W.....lb	30	Cramp, powdered lb	25
Iodide, 1-oz vials, M. C. W.....oz	44	Cramp, pressed, 1-lb lb	25
Metallic lb	45	Cundurango lb	45
Red, powdered lb	15	Cundurango, powdered lb	50
Solution (Donovan's) lb	40	Dogwood, pressed, 1-lb.....lb	20
Solution (Fowler's) lb	30	Dogwood, powdered lb	25
Sulphured, red powdered lb	33	Elder, pressed, 1-lb.....lb	35
Sulphured, yellow powdered lb	33	Elm, select, slabs. lb	30
White, lump lb	30	Elm, ground, bulk lb	30
White, powdered, commercial lb	15	Elm, powdered lb	30
Yellow (orpiment) lb	35	Elm, powdered, 1/4s.....lb	30
ASBESTOS. Fibrous, gro.....lb	20	Elm, powdered, 1/8s.....lb	35
ASPARAGIN. 1/8-oz vials oz	1 50	Elm, powdered, ozs.....lb	40
ASPIRIN oz	43	Hemlock, pressed, 1-lb. lb	25
ATROPIA. Pure, 1/8-oz vials oz	7 35	Hemlock, powdered. lb	30
Sulphate, 1/8-oz vials oz	6 25	Jamaica Dogwood, pressed, 1-lb.....lb	35
BALSAM. Copaiba, 8-lb can lb	75	Jamaica Dogwood, powdered, 1-lb.....lb	35
Copaiba, 5-lb bottle.....lb	80	Mezereon, pressed, 1-lb.....lb	28
Copaiba, 1-lb bottle.....lb	95	Oak, red, pressed, 1-lb.....lb	22
Copaiba, solidified lb	1 25	Oak, white, powdered. lb	22
Fir, Canada lb	75-80	Oak, white, pressed, 1-lb.....lb	22
Fir, Oregon. lb	50-55	Poplar, white, powdered, 1-lb.....lb	25
Gurgun lb	40	Poplar, white, pressed, 1-lb lb	25
Peru lb	3 25	Poplar, yellow, pressed, 1-lb.....lb	25
Sulphur lb	60	Prickly Ash, powdered lb	40
Tolu lb	65	Prickly Ash, pressed, 1-lb.....lb	33
BARIUM. Acetate, 1-oz vials, M. C. W...oz	16	Quebracho lb	35
Carbonate, M. C. W.....lb	37	Sassafras. lb	28
Carbonate, precip. lb	30	Sassafras, powdered lb	25
Chloride, chemically pure, M. C. W.....lb	33	Simaruba lb	50
Nitrate, M. C. W. lb	23	Soap Tree lb	10-12
Sulphide, commercial, M. C. W.....lb	43	Soap Tree, ground lb	15
Sulphide, pure, M. C. W.....lb	53	Soap Tree, powdered. lb	15
Sulphate, M. C. W. lb	13	Sumac, pressed, 1-lb.....lb	25
BARK. Alder, black, pressed, 1-lb.....lb	25	Tamarac, pressed, 1-lb lb	25
Alder, red or tag, pressed, 1-lb.....lb	24	Wahoo Root, pressed, 1-lb.....lb	33
Angostura lb	30	Wild Cherry. lb	16
Ash, black, pressed, 1-lb.....lb	20	Wild Cherry, ground. lb	18
Ash, mountain, pressed, 1-lb.....lb	24	Wild Cherry, powdered lb	20
Ash, white, pressed, 1-lb.....lb	25	BAY RUM. Domestic gal	2 25
Barberry, pressed, 1-lb.....lb	30	Imported gal	3 00
Barberry, powdered lb	35	BEANS. Calabar. lb	40
Bayberry, pressed, 1-lb. lb	25	Tonka, Angostura lb	1 35
Bayberry, powdered. lb	30	Vanilla, short, true Mexican.....lb	8 50
Birch, pressed, 1-lb.....lb	24	Vanilla, long, true Mexican.....lb	9 50
Black Haw, powdered lb	35	Vanilla, Tahiti lb	1 50
Black Haw, pressed, 1-lb.....lb	30	BEBEERINE. Pure, 1-oz vials oz	2 04
Black Willow, pressed, 1-lb.....lb	25	Sulphate, 1-oz vials oz	1 49
Blackberry. lb	20	BENZOLE. Pure lb	35
Buckthorn, pressed, 1-lb lb	25	BENZIN. Gallon gal	30
Butternut, pressed, 1-lb lb	25	5 and 10 gallons gal	25
Calisaya, yellow, commercial. lb	30	Pints doz	1 60
Calisaya, yellow, commercial, powd.....lb	32	BERBERINE. Hydrochloride oz	2 55
Calisaya, East India. lb	42	Sulphate oz	2 29
Calisaya, powdered. lb	45	BERRIES. Buckthorn lb	30
Canella lb	35	Cocculus Indicus lb	17

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Cubeb, stemless	lb	30	CALCIUM. Bromide, 1-oz vials, M. C. W.	oz	12
Cubeb, powdered	lb	30	Bromide, M. C. W.	lb	64
Elder	lb	30	Chloride, fused, M. C. W.	lb	64
Juniper, Italian	lb	10	Chloride, granular, M. C. W.	lb	30
Poke	lb	25	Glycerylphosphate	oz	22
Prickly Ash.	lb	40	Hypophosphite, 1-oz vials.	oz	14
Sumac	lb	25	Hypophosphite.	lb	89
Sumac, powdered	lb	30	Hypophosphite and Sodium, 1-oz vials.	oz	16
BETOL	lb	60	Hypophosphite and Sodium, M. C. W.	lb	1 09
BISMUTH. Acetate, M. C. W.	oz	36	Iodide, 1-oz vials, M. C. W.	oz	37
Citrate, M. C. W.	lb	2 89	Lactophosphate, soluble	lb	1 35
Citrate, M. C. W.	oz	26	Lactophosphate, soluble	oz	17
Citrate and Ammonia, M. C. W.	oz	26	Phosphate, precipitated, 1-lb cart.	lb	20
Citrate and Ammonia, M. C. W.	lb	2 82	Phosphide, 1-oz vials	oz	50
Lactate	oz	44	Sulphate, pure	lb	49
Metallic	lb	2 50	Sulphide, 1-oz vials	oz	10
Nitrate, M. C. W.	oz	24	Sulphide	lb	37
Oxide, Hydrated, M. C. W.	lb	3 68	Sulphite	lb	84
Oxide Hydrated, M. C. W.	oz	34	Sulpho, carbolate, M. C. W.	oz	11
Oxychloride, M. C. W.	lb	2 73	CALOMEL. N. Y. Q.	lb	1 05
Salicylate, 40%	oz	23	Calomel, P. W. R., 1-lb boxes.	lb	1 05
Salicylate, 64% Basic	oz	25	English, Howard's	lb	1 35
Salicylate, 64%, M. C. W.	lb	2 65	CAMPHOR. Monobromated, M. C. W.	oz	25
Subbenzoate	oz	32	Tar flake.	lb	5-7
Subcarbonate	lb	2 67	Tar balls.	lb	5-7
Subgallate	oz	25	CANDY. Coltsfoot Rock	lb	30
Subiodide, M. C. W.	lb	5 09	Horehound.	lb	12
Subiodide, 1-oz vials, M. C. W.	oz	39	Rock, on strings	lb	15
Subnitrate, M. C. W.	lb	2 37	Rock, brown	lb	16
Subnitrate, N. Y. Q.	lb	2 37	Rock, red	lb	15
Subnitrate, P. W. R.	lb	2 37	Rock, white	lb	14
Tannic, 1-oz vials, M. C. W.	oz	27	CANTHARIDES. Russian, powdered.	lb	1 25
Valerianate, 1/8s	oz	62	CAPSICUM. African, pods	lb	25
BLUE MASS	lb	65	African, powdered	lb	30
Powdered	lb	75	Bombay	lb	20
BLUE VITRIOL. Barrels, 7 1/2	lb	10-14	CARAMEL.	gal, \$1.25.	lb 25
Powdered	lb	18	CARBON. Bisulphide	lb	30
BOLE. Armenian	lb	18	Bisulphide, 50-lb cans	ea	5 18
BONE ASH	lb	6-8	Bisulphide, Wheeler's 50-lb can.	ea	5 18
BORAX. C. P., Squibb's	lb	33	Bisulphide, 1-gal cans	gal	1 43
Pacific Coast Borax Co., 1-lb.	doz	1 14	Bisulphide, quart bottles	doz	4 50
Pacific Coast Borax Co., 3/4-lb.	doz	90	CARMINE. No. 40.	oz	40
Pacific Coast Borax Co., 1/4-lb.	doz	48	No. 40.	lb	4 50
Powdered	lb	8-10	CASSIA FISTULA	lb	20
Pure Granular	lb	25	CASTOR FIBER.	oz	1 50
Refined	lb	8-10	Castor Fiber, powdered	oz	1 75
BOROFORMOL. Pints	doz	7 50	CERATE. Cantharides	lb	1 00
BOROGLYCERIDE Solution.	lb	60	Goulard's, U. S. P.	lb	70
BROMOFORM	oz	20	Resin, U. S. P.	lb	50
BROMINE	lb	83	Savin	lb	60
Chloride, solution	oz	60	Simple	lb	50
BRUCINE. 1/8-oz vials, M. C. W.	oz	1 75	Spermaceti	lb	70
BRUCINE	oz	1 75	Turner's	lb	60
Phosphate	oz	1 75	Zinc, Carbonate, true	lb	60
Sulphate, 1/8-oz vials	oz	1 75	Zinc, Oxide	lb	60
BUDS. Balm of Gilead	lb	60	CERIUM. Oxalate	oz	09
Cassia	lb	50	Oxalate, 1-lb. cartons.	lb	45
BUTTER CACAO. Ghirardelli	lb	65	CHALK. Crayons, white	lb	15
German	lb	72	French, cut	lb	18-20
CADMIUM. Bromide, M. C. W.	oz	20	French, powdered	lb	5-8
Iodide, M. C. W., 1-oz vials.	oz	33	Precipitated, English	lb	10-12
Sulphate, M. C. W., 1-oz vials.	oz	25	Prepared in drops, bulk	lb	7-8
CAFFEIN. Bromide, 1-oz vials.	oz	37	Prepared in drops, 5-lb boxes.	lb	8-10
Citrated, M. C. W.	oz	28	Prepared pink, 8-lb boxes.	lb	10
Citrated, N. Y. Q.	oz	28	White, in lumps	lb	3-4
Pure, N. Y. Q.	oz	35	CHARCOAL. Animal	lb	8-10
Sulphate, 1/8-oz vials, M. C. W.	oz	60	Willow, powdered	lb	15-20
Salicylate, true salt, 1/8s, M. C. W.	oz	60	CHINA CLAY	lb	10
CALAMINE	lb	18	CHINESE SHAVINGS	lb	60

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CHINOIDINE. 1-oz rolls	oz	12	Nitrate	lb	54
CHLORAL HYDRATE, CROTON, 1-oz vial			Sulphate, C. P., granulated, 1-lb. boxes...	lb	23
incl.	oz	35	Sulphate, Caustic Pencils	doz	1 75
Crystals, M. C. W., 1s.....	lb	1 35	Sulphate, purified, 1-lb cartons.....	lb	21
Crystals, M. C. W., ½s.....	lb	1 45	COPPERAS. bbls 1¼.....	lb	3-4
Crystals, M. C. W., ¼-lb cartons.....	lb	1 50	CORROSIVE SUBLIMATE. N. Y. Q.....	lb	95
Crystals, M. C. W., ozs.....	lb	2 10	Powdered, N. Y. Q.....	lb	95
Crystals, 1-lb g. s. b. incl., Schering.....	lb	1 45	1-lb boxes, P. W. R.....	lb	95
Crystals, ½-lb g. s. b. incl., Schering.....	lb	1 55	COTOIN. Para, ⅛-oz.....	oz	14 00
Crystals, ¼-lb g. s. b. incl., Schering.....	lb	1 65	COTTON. Negative.	oz	60
Crystals, 1-oz g. s. vls. incl., Schering.....	oz	17	COWHAGE. 1-oz cans	oz	55
CHLORALAMID	25 gramme	80	CREAM TARTAR, pure, powdered.....	lb	34-37
CHLOROFORM. 1-lb. tin, N. Y. Q.....	lb	52	Pure, powdered, 25-lb box.....	lb	30
In 7-lb. bottle, N. Y. Q.....	lb	42	CREOLIN. ½-lb.....	doz	4 00
Squibb's, 1-500 gramme.....	ea.	1 00	1-lb	doz	8 00
CINCHONINE Alk'd pure 1-oz vials M.C.W.oz		25	CREOSOTE. Beechwood	lb	94
Bisulphate, M. C. W.	oz	18	½-lb	lb	1 10
Muriate, M. C. W.....	oz	17	¼-lb	lb	1 20
Sulphate, 1-oz vials, M. C. W.....	oz	17	CREOSOTE CARBONATE	oz	65
CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz		50	In ¼-lb	lb	9 25
Bisulphate, 1-oz vials, M. C. W.....	oz	30	In ½-lb	lb	9 15
Muriate, M. C. W.	oz	32	In 1-lb	lb	9 10
Salicylate, 1-oz vials, M. C. W.....	oz	34	CROCUS MARTIS	lb	16
Sulphate, 1-oz vials, M. C. W.....	oz	30	CUDBEAR	lb	30
Sulphate, 5-oz cans, M. C. W.....	oz	25	CUMARIN	oz	45
Sulphate, 1-oz vials, P. W. R.....	oz	28	CUMENE (Cumol)	lb	1 10
CLOVES. Zanzibar	lb	30	CURCUMA. Powdered	lb	16
Zanzibar, powdered	lb	35	CUTTLEFISH	lb	35
COBALT	lb	25	Jeweler's	lb	85
Cobalt, powdered	lb	30	Powdered	lb	30
COCAINE. Alk., M. C. W., 1-oz v'ls, incl.oz		3 50	DATURINE. Alk., cryst., 5-gr.....	ea	75
Hydrochloride, M. C. W.....	oz	2 65	DEXTRIN.	lb	12-15
Hydrochloride Cryst., 1-oz v'ls, N.Y.Q.oz		2 45	DIASTASE. of Malt	oz	1 14
Hydrochloride Cryst., ½-oz v'ls, N.Y.Q.oz		2 60	DIGALEN. ½-oz bottles	ea	1 00
Hydrochloride Cryst., ¼-oz v'ls, N.Y.Q.oz		2 70	DIGITALIN. ⅛-oz vials	oz	5 75
Hydrochloride Cryst., ⅛-oz v'ls, N.Y.Q.oz		2 85	DIONIN. ⅛s.	oz	6 25
Hydrochloride, 1-oz vials, P. W. R.....	oz	2 45	15-gr vials	ea	35
COCHINEAL. Honduras	lb	60	DOVER'S POWDER, U. S. P.....	lb	1 70
Honduras, powdered.	lb	65	DRAGON'S BLOOD, Mass.	lb	55
CODEINE. N. Y. Q., pure.....	oz	4 95	Powdered	lb	85
Muriate, N. Y. Q..... 1 oz, \$4 70.....	⅛s	4 90	Reed's.	lb	85
Phosphate, N. Y. Q., ⅛-oz vials.....	oz	4 65	DIURETIN.	oz	1 80
Pure, M. C. W.....	oz	4 95	DUBOISINE. Sulphate, 10-gr vial.....		1 10
Sulphate, M. C. W.....	oz	4 70	EARTH, Fuller's, powdered.	lb	8-10
Sulphate, 1-oz vials, P. W. R.....	oz	4 70	EIKONOGEN, lb, \$3.95; ½s, \$4.20.....	oz	37
COLLODION	lb	70	½s.	lb	4 80
1-oz vials	doz	1 25	ELATERIN. 15-gr vial		1 25
Cantharidal	lb	1 85	ELATERIUM, ⅛-oz vials.....	oz	2 25
Cantharidal, 1-oz vials	doz	1 75	EMERY. Flour.	lb	10-12
Flexible	lb	70	Grain.	lb	10-12
Flexible, 1-oz vials	doz	1 00	EMETIN (Resinoid)	oz	7 53
COLCHICINE. Cryst., 15-grain.....	gr	14	(Alkaloid), pure, 15-gr vial.....		1 25
C. P., Amorph., 15-grain vials.....	gr	30	ERGOT. Spanish.	lb	65
COLOCYNTH. Apples, Trieste.....	lb	60-65	Spanish, powd.....	lb	65
Apples, powdered	lb	75	ERGOTIN. Bonjean	oz	39
COMPOSITION POWDER, 2-oz papers..lb		35	ERGOTOLE. S. & D.....	doz	4 50
CONFECTION. Aromatic	lb	1 00	ESERINE (Physostigmine), 5-gr Alkaloid..gr		13
Opium	lb	1 50	Sulphate, 5-gr vials	ea	50
Rose, U. S. P.	lb	65	Sulphate, 10-gr vials	ea	1 00
Senna, U. S. P.	lb	70	Sulphate, 15-gr vials	ea	1 50
Theriac	lb	1 25	ETHER. Acetic, M. C. W., 1-lb. bot.....	lb	61
COPPER. Acetate, cryst., C.P., M.C.W.....	lb	74	Benzoic, 1-oz bot.	oz	34
Acetate, com'l, lump	lb	40	Butyric, 1-lb bot.....	lb	1 25
Acetate, Po. Verdigris	lb	45	Chloric, U. S. P., M. C. W., 1-lb bot....	lb	64
Ammoniated	lb	59	Chloric, concent., M. C. W., 1-lb bot....	lb	74
Arsenite, 1-oz vials, M. C. W.	oz	19	Formic, 1-lb bot.	lb	1 59
Arsenite, 1-oz vials	oz	19	Hydrobromic, 1-oz bot.	oz	20
Bromide	oz	32	Nitrous, conc., M. C. W., ¼-lb bot.....	lb	1 20
Carbonate	lb	38	Nitrous, conc., M. C. W., ½-lb bot.....	lb	1 10

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Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00	GADUOL	oz	37
Nitrous Spirit, 4-lb bot. lb	58	GAMBIER.	lb	15
Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	31	GARANTOSE. 550 times sweeter than sugar.		
Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	27	1-lb cans	lb	2 25
Sulphuric, U.S.P., ¼-lb cans, P.W.R.....lb	58	1-oz cans	oz	20
Sulphuric, U.S.P., 1-lb cans, P.W.R.....lb	41	GELATIN. Cooper's, 12-lb case.....lb		65
Sulphuric, washed, 1-lb bot.....lb	42	Coxe's.	doz	1 50
Sulphuric, Squibb's, in 1-500 gm cans....ea	88	French Pink. lb		75
Sulphuric, Squibb's, in 1-250 gm cans....ea	49	French Gold Label. lb		55
Sulphuric, Squibb's, in 1-100 gm cans....ea	22	French Silver Label.....lb		40
Valerianic	30	GLASS. Powdered. lb		15
ETHYL. Bromide	20	Soluble.	lb	25
Chloride, 10 gramme tubes Bengue.....doz	5 00	GLUCOSE. 1-lb bot.....lb		20
Chloride, 30 gramme tubes Bengue.....doz	10 00	GLUE. Common. lb		15
Chlodire, 10 gramme	40	White, No. 1. lb		25
Iodide (see Hydriodic Ether)	54	GLUTOL	oz	65
EUCALYPTOL	16	GLYCERINE. Price's. lb		70
EUCAINE. A or B, ½s.....oz	3 60	Pure, in 10-lb cans	lb	22
EUDOXINE.	2 10	Pure, in 50-lb cans	lb	19½
Tablets, 3-gr.	2 60	GLYCEROPHOSPHATES. Iron	oz	32
Tablets, 5-gr. oz	2 50	Lime	oz	22
Tablets, 1-3 gr, ¼-oz bots.....oz	3 00	Potash	oz	29
EUKATROL, powd.....oz	1 00	Soda	oz	28
Tablets	1 00	GLYCYRRHIZIN. Ammoniated	oz	26
EUROPHEN.	1 80	GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70	
EXALGINE.	1 50	And Sodium Chlor, 15-gr vials, P.W.R..doz	3 30	
EXTRACT. Licorice, Corigliano. lb	45	Chloride, 15-gr vials, M. C. W.....doz	5 10	
Licorice, Mellor & Rittenhouse.....lb	27-30	Chloride, 15-gr vials, P. W. R.....doz	5 10	
Licorice, M. & R., 25 and 50-lb box....lb	26	Mono-bromide, 15-gr vials.....ea	1 25	
Licorice, soft, perf., clearly soluble.....lb	75	Tri-bromide, 15-gr vials	ea	1 00
Licorice, Y. & S.....lb	27-30	Tri-cyanide, 15-gr vials	ea	2 00
Licorice, powd.	35	GOOSE GREASE.	lb	60
Logwood, bulk	15	GRAINS. Paradise. lb		40
Logwood, ¼s.	20	Powdered.	lb	45
Logwood, ½s. lb	18	GUAIACOL. Carb.	oz	1 50
Logwood, 1s. lb	16	Merck's.	oz	18
Male Fern, U. S. P.....lb	2 25	GUARANA. Powd	lb	2 75
Malt, dry	1 25	GUM. Aloes, Barbadoes.....lb		50
Witch Hazel	80-90	Aloes, Barbadoes, powd.....lb		55
Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05	Aloes, Cape.	lb	20
Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00	Aloes, Cape, powd.....lb		20-25
FAREOL.	50	Aloes, Socotrine	lb	40
FENETOLE	2 00	Aloes, Socotrine, powd.....lb		40
FERRATIN. Powder or tablets.....oz	85	Ammoniac tears. lb		40
FLAKE WHITE. English. lb	15	Arabic, Turkey, first pick.....lb		55
FLOUR. Gluten.	15	Arabic, Turkey, second pick.....lb		40
Rice.	12	Arabic, Turkey, sifted sorts. lb		20
FLOWERS. Althea.	40	Arabic, first pick, granulated.....lb		58
Arnica	20-22	Arabic, first pick, powd.....lb		60-65
Arnica, powd. lb	25	Asafoetida, Calcutta. lb		40
Calendula, new	90	Asafoetida, powd. lb		45
Chamomile, German, new.....lb	35	Asphaltum.	lb	15
Chamomile, Roman	40	Benzoin, marble, select. lb		50
Elder	30	Benzoin, powd. lb		55
Elder, pressed. oz	25	Camphor, bulk	lb	90
Kooso.	75	Camphor, 1-oz blocks	lb	93
Kooso, powd.	80	Camphor, 24 to lb	lb	93
Lavender.	35	Camphor, powd. lb		1 10
Mullein.....lb	1 00	Catechu, refined. lb		18
Orange.....lb	1 10	Catechu, powd. lb		30
Poppy, red. lb	75	Copal	lb	35
Rose, red.	1 20	Damar.	lb	38
Rosemary.	35	Galbanum.	lb	1 00
FLOUR SPAR. Powdered.....lb	25	Gamboge	lb	1 10
FORMALDEHYDE	32	Gamboge, powd. lb		1 15
5-lb bot. lb	25	Guaiaac.	lb	35
FORMALIN. S. & G. lb	40	Guaiaac, powd. lb		40
FORMIN	18	Kino, true. lb		75
		Kino, true, powd.....lb		80

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Mastic tears	lb	80	HYOSCYAMINE. Alkaloid, crys. 15-gr vls. ea	4	75
Myrrh, Turkey.	lb	35	Amorphous	gr	25
Myrrh, Turkey, powd.	lb	40	Hydrobromate, Amorph., 15-gr.	ea	3 00
Olibanum tears	lb	30	Sulphate, crys., 15-gr	ea	3 03
Opium	lb	5 75	Sulphate, Amorph., 5-gr vials.	ea	1 25
Opium, powd	lb	6 25	IATROL.	oz	95
Sandarac.	lb	45	ICHTHARGAN	oz	3 00
Scammony, Aleppo.	oz	40	ICHTHORFORM	oz	1 00
Scammony, Virgin, true.	oz	75	ICHTHYOL, 1-oz vials	oz	32
Shellac, bleached.	lb	75	1/4s	oz	4 25
Shellac, orange.	lb	70	1/2s	oz	4 10
Shellac, ground.	lb	75	1s	oz	4 00
Spruce.	lb	1 50	INDIGO, Manila, extra.	lb	75
Tamarac, true.	lb	1 25	IODIPIN (10% Iodized Sesame oil)	oz	28
Thus.	lb	12	IODINE, Bromide, 1-oz vials, M.C.W.	oz	47
Tragacanth, ribbon.	lb	90	Chloride, 1-oz vials, M.C.W.	oz	52
Tragacanth, powd.	lb	80	Resublimed, 1-oz vials, M. C. W.	oz	35
GUTTA PERCHA. Crude, shavings.	lb	1 75	Resublimed, M. C. W.	lb	3 43
Crude, sheets.	lb	1 75	Resublimed, N. Y. Q.	lb	3 33
HEDONAL.	oz	1 60	Resublimed, 1-lb bot., P. W. R.	lb	3 33
HEMICRANIN	oz	90	Burnham's, soluble.	oz	1 00
HEMOGALLOL	oz	80	IODOFORM, bulk, M. C. W.	lb	3 85
Tablets	100	80	Iodoform, 1-lb bot, N. Y. Q.	lb	3 83
HEROIN. 1-oz.	oz	6 70	Iodoform, 1-lb bots., P. W. R.	lb	3 83
1/2-oz vial	oz	6 85	Cryst. or powd	oz	34
1/4-oz vial	oz	7 00	Deodorized.	oz	54
15-gr vial	ea	29	IODOL.	oz	1 25
Hydrochloride, oz vial	oz	6 70	IRON, Acetate, dry, 1-oz vials, M.C.W.	oz	24
1/2-oz vial	oz	6 85	Acetate, liquor.	lb	44
1/4-oz vial	oz	7 00	Albuminate.	oz	20
15-gr vial	ea	29	Ammoniated, M. C. W.	lb	44
HEXAMETHYLENAMINE	lb	45-1 60	And Ammonium Cit	lb	75
"	oz	16	Arseniate, 1-oz vials.	oz	18
HIERA PICRA.	lb	50	By Hydrogen	lb	60
HOFFMAN'S ANODYNE.	lb	75	Carbonate, precipitated.	lb	18
HOMATROPINE, Alk'l'd, 5-gr vials.	ea	2 25	Carbonate, proto.	lb	42
HOMATROPINE. Alk'l'd, 5-gr vials.	ea	2 25	Carbonate, saccharated.	lb	45
Hydrobromate, 5-gr vials	ea	1 75	Chloride, 1-oz vials.	oz	8
Hydrochlorate, 5-gr vials	ea	2 10	Chloride, crystal.	lb	34
HOMOGLOBIN. Powd	oz	1 04	Chloride, sol. for tincture.	pt	35
HOPS, new, bulk.	lb	37	Citrate, soluble, 1-oz vials.	oz	13
New, ozs.	lb	50	Citrate, soluble, N. Y. Q.	lb	75
New, 1/4s, 1/2s.	lb	40	Citrate, soluble, M.C.W.	lb	75
HYDROCHINON	oz	18	Citrate and quinine, N. Y. Q.	lb	2 00
"	lb	1 42	Citrate and Quinine, sol., M. C. W.	lb	2 00
HYDROGEN PEROXIDE, Drevet's U.S.P.,			Citrate and Quinine with Strych., M.C.W. lb	2	55
1-lb bots.	doz	3 00	Citrate and Quinine with Strych., M.C.W. oz	26	
Drevet's U.S.P., 1/2-lb bots.	doz	1 90	Citrate and Strychnine, 1-oz vials, M.C.W. oz	13	
Drevet's U.S.P., 1/4-lb bots.	doz	1 40	Ferrocyanide, 1-oz vials, M. C. W.	oz	10
Marchand's, 1-lb bots.	doz	8 00	Ferrocyanide, M. C. W.	lb	65
Marchand's, 1/2-lb bots.	doz	5 25	Filings.	lb	16
Marchand's, 1/4-lb bots.	doz	3 80	Glycerino Phosphate.	oz	32
Marchand's, 1/8-lb bots.	doz	2 25	Hypophosphite, 1-oz vials, M. C. W.	oz	20
M. C. W., 1-lb bots.	doz	3 00	Iodide, 1-oz vials, M. C. W.	oz	36
M. C. W., 1/2-lb bots.	doz	1 80	Lactate, 1-oz vials, M. C. W.	oz	10
M. C. W., 1/4-lb bots.	doz	1 20	Lactophosphate, 1-oz vials, M. C. W.	oz	19
Oakland, 1-lb bots.	doz	6 50	Nitrate, sol., U. S. P., M. C. W.	lb	34
Oakland, 1/2-lb bots.	doz	4 00	Oxide, black.	lb	49
Oakland, 1/4-lb bots.	doz	2 25	Oxide, brown, com'l	lb	22
Oakland, 5-lb bots.	ea	1 59	Oxide, brown, pure	lb	74
HYDRO NAPHTHOL.	oz	75	Peptonized	oz	24
HYDRASTINE. Alkaloid	oz	10 04	Phosphate, precipitate.	lb	39
Hydrochloride	oz	20 00	Phosphate, U. S. P., scales, N. Y. Q.	oz	13
HYDRASTININE. Hydrochloride, 15-gr vls. ea	3	00	Phosphate, U. S. P., scales, N. Y. Q.	lb	75
HYDROQUINONE	oz	18	Pyrophosphate, soluble, N. Y. Q.	lb	75
HYOSCINE. Amorphous, 15-gr vials.	ea	2 00	Pyrophosphate, U. S. P., 1880, N. Y. Q.	oz	13
Hydrobromate, 5-gr vials	ea	2 00	Pyrophosphate, U. S. P., 1880, N. Y. Q.	lb	75
Hydriodide, 5-gr vials	ea	2 00	Reduced (Quevenne's)	lb	58
Sulphate, 5-gr vials	ea	2 00	Reduced (Quevenne's)	oz	10

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Salicylate, 1-oz vials, M. C. W.....oz	15	Coltsfoot, pressed. oz	25
Subsulphate, M. C. W.....oz	6	Damiana.....lb	30
Subsulphate, M. C. W.....lb	36	Digitalis, pressed. oz	35
Subsulphate, sol., M. C. W.....lb	23	Digitalis. lb	35
Succinate oz	60	Digitalis, powd. lb	35
Sulphate, dried. lb	20	Eucalyptus. lb	20
Sulphate, gran., pure.....lb	18	Grindelia Robusta lb	25
Sulphate, pure, cryst., M. C. W.....lb	20	Grindelia Squarosa lb	40
Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13	Hemlock, pressed. oz	30
Tannate, 1-oz vials, M. C. W.....oz	22	Henna. lb	50
Tartrate and Ammonia, M. C. W.....oz	11	Henna, powd. lb	55
Tartrate and Ammonia, M. C. W.....lb	72	Henbane. lb	30
Tartrate and Potassium, M. C. W.....oz	10	Henbane, powd. lb	30
Tartrate and Potassium, scale, M. C. W...lb	58	Henbane, pressed, oz.....lb	30
Tersulphate, sol., U. S. P.....lb	40	Jaborandi. lb	35
Valerianate. oz	22	Jaborandi, powd. lb	40
IODOTHYRINE. oz	3 40	Laurel. lb	25
ISINGLASS, American lb	1 05	Lovage, pressed, oz.....lb	30
Russian. lb	5 25	Lungwort, pressed, oz.....lb	34
KAMALA. lb	65	Marjoram, sweet lb	36
Powd. lb	75	Rosemary, bulk. lb	20
KAOLIN.....lb	10	Rosemary, pressed, oz.....lb	25
KERATIN (Pepsinized), $\frac{1}{8}$ s oz	3 53	Sage, oz. lb	25
KOUSSO. lb	75	Savin, pressed, oz.....lb	25
Powd.....lb	75	Senna, Alexandria, garbeled.....lb	30
KRYOFINE. oz	1 00	Senna, Alexandria, powd. lb	30
LACTUCARIUM oz	80	Senna, Tinnevely, select.....lb	25
LACTOPHEPIN. oz	1 00	Stramonium, powd. lb	30
LANOLIN. lb	80	Stramonium, pressed, oz.....lb	25
Lanae Adeps, 1-lb cans, B. J. D.....lb	35	Thyme, pressed, oz.....lb	25
Lanae, British. lb	35	Uva, Ursi. lb	20
LANUM (Adeps Lanae Hydrosus) lb	40	Witch Hazel, pressed, oz.....lb	25
LARD, Benzoated, 5-lb cans.....lb	27	LEECHES. ea	10
LARGIN oz	1 75	2 dozen lots.....ea	8
LEAD. Acetate, med. crys. or gran.....lb	33	LEPTANDRIN. oz	35
Acetate, white. lb	18	LIME, Chloride, 35-lb cans.....lb	5
Acetate, white, powd.....lb	25	Chloride, in bbls of 350 lbs.....lb	2 $\frac{3}{4}$
Acetate, purified, gran., 1-lb cart., M.C.W.lb	33	Chloride, 1b cans doz	90
Bromide. oz	24	Chloride, $\frac{1}{2}$ -lb cans.....doz	65
Carbonate.....lb	12	Chloride, $\frac{1}{4}$ -lb cans.....doz	45
Chloride, 1-oz vials.....oz	11	LITHARGE. lb	12
Chromate, M. C. W.....lb	1 19	LITHIUM, Benzoate, 1-oz vials, M.C.W...oz	15
Iodide, 1-oz vials, M. C. W.....oz	27	Bromide, 1-oz vials, M. C. W.....oz	22
Nitrate, 1-lb boxes, M. C. W.....lb	23	Carbonate, M. C. W.....oz	17
Nitrate, chemically pure, M. C. W.....lb	40	Citrate, 1-oz vials, M. C. W.....oz	17
Oxide, chemically pure, M. C. W.....lb	84	Iodide oz	37
Oxide lb	84	Salicylate, 1-oz vials, M. C. W.....oz	15
Subacetate, sol. lb	35	LITMUS. lb	50
Sulphate, pure, M. C. W.....lb	63	Paper. doz	50
Tannate, 1-oz vials, M. C. W.....oz	24	LODESTONE. lb	75
LEAVES, Aconite, German.....lb	30	LONDON PURPLE. lb	20
Aconite, powd. lb	30	LOSOPHAN. oz	1 80
Aconite, pressed. oz	25	LUPULIN, German. lb	75
Angelica, pressed. oz	25	LYCOPodium. lb	75
Bay, bulk. lb	15	LYCETOL. oz	4 25
Belladonna, English, bts.....lb	1 25	LYSOL, 1-gal. jugs.....gal	4 00
Belladonna. lb	30	Pints. doz	8 00
Belladonna, powd. lb	35	MACE.....lb	75
Belladonna, pressed. oz	35	Powd. lb	75
Blessed Thistle, pressed.....oz	34	MADDER, Dutch. lb	15
Borage, pressed. oz	35	MAGNESIUM, Benzoate, M. C. W.....oz	24
Buchu, long. lb	55	Bromide, Mallinckrodt's. oz	25
Buchu, short. lb	40	Calcined, Jennings', 1-lb cans.....lb	85
Buchu, powd. lb	40	Calcined, K. & M.'s, 1-lb cans.....lb	75
Buckbean, pressed oz	30	Calcined, K. & M.'s, heavy.....lb	80
Cocoa.....lb	45	Carbonate, Jennings', 2-oz.....lb	35
Conium. lb	30	Carbonate, Jennings', 4-oz.....lb	35
Conium, powd. lb	35	Carbonate, K. & M.'s, 1-oz.....lb	27
Conium, pressed. oz	30	Carbonate, K. & M.'s, 2-oz.....oz	23

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Carbonate, K. & M.'s, 4-oz.....lb	23	Tonquin, grain	dr	3 25
Carbonate, K. & M.'s, small sq.....lb	60	MUSTARD, Colman's, 4-oz cans.....doz	1	75
Carbonate, powd., in 65-lb bbls.....lb	13	Colman's, 5-lb cans	lb	50
Carbonate, powd., in 10-lb boxes.....lb	16	Ground, Domestic, 5-lb cans.....lb		18
Citrate, dry, English.....lb	65	NAPHTHALIN, Balls.	lb	5-7
Citrate, sol.	doz	Resublimated	lb	27
Glycerinophosphate	oz	Pure, 1-lb cartons, M. C. W.....lb		27
Hypophosphite, 1-oz vials, M. C. W.....oz	20	NAPHTHOL, Alpha.	oz	30
Hypophosphite, M. C. W.....lb	1 69	Beta.	oz	10
Hypophosphite	oz	NICKEL, Bromide	oz	32
Iodide, M. C. W.....oz	47	Bromide, 1-oz vials, M.C.W.....oz		29
Sulphite, M. C. W.....lb	49	Nickel and Ammonia Sulphate, M. C. W..lb		34
MANGANESE, Black, Oxide	8-10	Sulphate, 1-oz vials, M. C. W.....oz		9
Phosphate, M. C. W.....oz	18	Sulphate	oz	10
Carbonate, 1-oz vials, M. C. W.....oz	14	NOSOPHEN.	doz	4 50
Chloride, 1-oz vials, M. C. W.....oz	14	NUTGALLS, Aleppo.	lb	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aleppo, ground.	lb	35
Hypophosphite	oz	Aleppo, powd.	lb	35
Iodide, 1-oz vials, M. C. W.....oz	47	NUTMEGS, Macassar, large.....lb		60
Peptonized	oz	Penang, powd.	lb	65
Phosphate, M. C. W.....oz	18	NUTS, Areca	lb	30
Sulphate, 1-oz vials, M. C. W.....oz	9	Areca, powd.	lb	40
MANNA, Large flake	1 15	Kola.	lb	35
Small flake	75	Kola, powd.	lb	40
MENTHOL	3 40	NUX VOMICA.	lb	25
Cryst., 1-oz vials, Mallinckrodt's.....oz	30	Powdered or rasped.....lb		25
Crystallized	3 50	OAKUM	lb	15
MERCURY, Chloride	99	Surgeon's.	lb	20
Ammoniate, d white precip.	1 25	OIL, Almonds, Bitter, true, Merck's.....lb	6	59
Bisulphate	76	Almonds, Bitter, Allen's.....oz		75
Cyanide	31	Almonds, Sweet, Allen's.....lb		75
Iodide, green, 1-oz vials, M. C. W.....oz	24	Almonds, Sweet	lb	50-65
Iodide, red, 1-oz vials, M. C. W.....oz	26	Amber, rectified.	lb	60
Iodide, yellow, 1-oz vials, M. C. W.....oz	24	Anise	lb	1 75-2 00
Nitrate, proto., 1-oz vials, M. C. W.....oz	27	Bay Leaves, true.....oz		35
Nitrate, solution, 1-oz vials.....oz	27	Bay Leaves	lb	3 75-4 00
Oxide, black, 1-oz vials.....oz	18	Benne.....	gal	1 20
Oxide, red (red precip.).....lb	1 20	Bergamot	lb	4 75-5 00
Oxide, yellow, 1-oz vials	oz	Birch Tar, rectified.....lb		1 25
Salicylate, M. C. W.....oz	27	Cade.....	lb	50
Subsulphate, 1-oz vials.	15	Cajuput (21-oz bottles).....lb	1 10-1	35
Subsulphate	1 12	Calamus.	oz	45
Sulphuret, black.	78	Camphor, E. I.	lb	45
White Chalk, 1-lb cartons	46	Caraway, seed.	lb	2 25
METHYL, SALICYLATE.	80	Cardamon.	oz	2 50
METHYLENE, Blue Medicinal	45	Cassia	lb	1 85-2 00
MILK SUGAR, Cryst.....lb	33	Castor, Baker's A. A.....gal	1 38-1	50
Powdered, bulk	23	Castor, Marsh's	gal	1 34-1 45
M. C. W., 1-lb cartons	25	Castor, 2-oz bottles.....doz		85
MORPHINE, Sulphate, 1/8s, 1-oz box, M. C. W.	3 55	Castor, 4-oz bottles.....doz	1	25
Sulphate, 1 1/8s, 2 1/2-oz box, M. C. W.....oz	3 50	Castor, 6-oz bottles.....doz	1	75
Sulphate, 1-oz vials, M. C. W.....oz	3 30	Castor, 8-oz bottles.....doz	2	25
Sulphate, 5-oz can, M. C. W.....oz	3 25	Castor, 12-oz bottles.....doz	2	50
Sulphate, 1 1/8s, 1-oz box, N. Y. Q.....oz	3 55	Castor, 16-oz bottles.....doz	3	75
Sulphate, 1 1/8s, 2 1/2-oz box, N. Y. Q.....oz	3 50	Cedar	lb	60-100
Sulphate, 1-oz vials, N. Y. Q.....oz	3 30	Cedrat.	oz	40
Sulphate, 1/8s, 2 1/2-oz box, P. W. R.....oz	3 50	Celery.	oz	1 40
Sulphate, 1-oz bot, P. W. R.....oz	3 30	Chamomile, German.	oz	5 00
In 10-oz lots, 10c oz less.		Chamomile, Roman.	oz	1 75
Morphia, Acetate, 1/8s, M. C. W.....oz	4 00	China, Nut.	gal	1 00
Morphia, Muriate, 1/8s, M. C. W.....oz	4 00	Cinnamon, Ceylon.	oz	90
Morphia, Valerianate, 1/8s, M. C. W.....oz	5 00	Citronella	lb	75-85
Other salts or Morphine subject to market price based on above.		Cloves	lb	1 40-1 65
MOSS, Iceland.	18	Cocanut	lb	20-25
Irish.	15	Codliver, White, Norwegian.....gal	1	65
Irish, bleached.	20	Codliver, white, Norwegian, 5-gal cans..gal	1	50
MUSK, Chinese	40	Cognac, green.	oz	2 50
		Cologne.	oz	50
		Copaiba.....	lb	1 75

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Coriander. oz	90	Savin. lb	1 75
Cotton Seed (salad), 5-gal can. gal	95	Spearmint lb	3 25
Cotton Seed (salad), 1-gal can. gal	1 20	Sperm. gal	1 00
Croton, 24-oz bots. lb	1 50-1 65	Spike. lb	35
Croton oz	20	Spruce. lb	85
Cubebs lb	2 00-2 25	Tansy lb	5 50
Ergot, Keith's. oz	57	Tar. lb	25
Erigeron, Keith's. oz	38	Thyme, white. lb	1 50
Erigeron lb	2 75	Turpentine, pure. lb	55
Eucalyptus lb	85	Wine, light. oz	40
Fennel Seed lb	2 25	Wine, heavy. oz	50
Fusil, purified. lb	80	Wintergreen lb	4 00-4 25
Geranium, Rose, Chris. oz	75	Wormseed. lb	3 75-4 00
Hemlock lb	85	Wormwood lb	5 25
Hydrocarbon. gal	1 25	Ylang Ylang. oz	4 50
Jasmin, alcoholic. lb	3 00	OINTMENT, Basilicon. lb	65
Juniper Berries. lb	1 25-1 50	Citrine. lb	65
Juniper, wood. lb	75	Iodine. lb	1 25
Lard. gal	1 10	Mercurial, 1/2 m. lb	65
Laurel, expressed. lb	60	Mercurial, 1/3 m. lb	55
Lavender, Flowers lb	3 85	Stramonium. lb	75
Lavender, Garden lb	1 25	Tar. lb	50
Lemon lb	2 00	Zinc, benzoated. lb	65
Lemon, Sanderson's lb	2 25	Zinc, oxide. lb	65
Lemon, Grass lb	2 25	OPIUM, powd. or gran., P. W. R. lb	7 25
Linseed, raw gal	74	ORTHOFORM oz	1 40
Linseed, raw, case gal	67	PANCREATIN. Pure oz	44
Linseed, boiled gal	74	Pure, scales, P. D. & Co. oz	50
Linseed, boiled, case gal	69	PAPAIN, Boehringer. oz	75
Mace, expressed. lb	1 75	PARAFFINE, refined. lb	12-15
Male Fern, ethereal. oz	35	PARALDEHYDE lb	99
Myrbane. lb	40	oz	14
Mullein. oz	45	PARIS GREEN. lb	38-42
Musk, alcoholic. oz	1 00	PASTILLES, Fumigating, black. lb	50
Mustard, essential. oz	50	Fumigating, red lb	50
Mustard, expressed. gal	90	PEARL ASH. lb	8-10
Neatsfoot, No. 1. gal	90	PEEL, Orange, sweet, ground. lb	20
Neroli, Petal. oz	3 00	Orange, bitter, coarse. lb	20
Neroli, Bigarade. oz	5 75	Orange, bitter, powdered. lb	20
Neroli, Petit Grain. oz	55	Orange, sweet, quarters. lb	20
Nutmegs, essential. oz	35	PELLETIERINE, Sulphate, 15-gr vial.	1 75
Olive, pure, Malaga. gal	1 25	Tannate, 15-gr vial	35
Olive, California gal	2 75	PEPPER, black, Singapore, sifted. lb	30
Olive, 1/2-gals. gal	3 00	Black, powd. lb	30
Olive, small doz	3 75	White. lb	40
Olive, large. doz	7 50	White, powd. lb	40
Olive, imported. gal	2 00-2 10	PEPSIN, pure, U. S. P. lb	4 50
Orange, bitter. lb	4 50	Powd. or scales. lb	4 50
Orange, sweet lb	3 25	Powd., Ph. G. III. oz	25
Origanum, pure. lb	60	PEPTONE, Merck's, dry, from meat. oz	34
Origanum, Chris. lb	1 85	PETROLATUM, 1-lb cans. doz	2 00
Palm. lb	25	50-lb pails. lb	7
Patchouly. oz	75	25-lb pails. lb	7 1/2
Pennyroyal lb	4 00	10-lb cans. lb	9
Pepper, black. oz	20	5-lb cans. lb	10
Peppermint, Hotchkiss lb	3 25-3 50	Snow White, 50-lb pails. lb	15 1/2
Peppermint, Wayne Co. lb	2 75-3 00	Snow White, 25-lb pails. lb	16 1/2
Peppermint, Western lb	2 75-3 00	Snow White, 10-lb cans. lb	18
Pimento. oz	30	Snow White, 5-lb cans. lb	19
Pinus, Sylvestris, German. lb	1 50	Snow White, 1-lb cans. lb	30
Pinus, Pumilio. lb	4 50	PHENACETINE. oz	33
Pinus Pumilio. oz	40	PHENILINE. oz	1 00
Rhodium oz	35	PHENOLPHTHALEIN oz	34
Rose, Kizanlik oz	7 50	PHOSPHORUS, 1-lb cans. lb	85
Rosemary, flowers. lb	1 25-1 50	1/2-lb cans. lb	95
Rue. oz	40	1/4-lb cans. lb	1 05
Sandalwood, English. lb	5 50	Amorphous. lb	1 44
Sandalwood, German. lb	3 00-3 20	PIPERAZIN, Schering's 10-gm vials. bot	1 50
Sassafras. lb	90-1 00	1/2-oz and 1-oz. oz	4 25

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PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62	Jalap, comp. lb	1 00
PIPE CLAY. lb	12	Licorice, comp. lb	25
PITCH, Burgundy lb	15	Licorice, comp., 2-oz packages.....doz	75
PITH, Sassafras. lb	1 50	Rhubarb, comp. lb	1 50
PLATINUM and Barium Cyanide, cr.....gr	15	Tooth. lb	50
Chloride oz	17 00	PROPYLAMIN, 10% solution oz	55
Chloride, solution, 10%.....oz	2 82	Hydrochlorate, 1/8-oz vials. oz	3 50
PODOPHYLLIN oz	30	PROTARGOL. oz	1 25
POPPY HEADS, German. lb	30	PULVIS ANTIMONIALIS. lb	85
POTASH, Babbitt's, 4 doz in case.....case	3 40	PYOKTANIN, Blue or Yellow oz	1 50
Caustic, pure, by alcohol.....lb	60	PYRIDINE oz	32
Caustic, white. lb	37	QUICKSILVER. lb	80
Caustic, 10-lb cans.....lb	10-12	QUINACETINE. oz	85
Solution (liq. potass.) lb	35	QUINALGIN. oz	1 25
POTASSIUM. Acetate, M. C. W., 1-lb.....lb	42	QUININE, Alkaloid, 1-oz vials, M.C.W....oz	58
Antimonate lb	1 09	Bisulphate, 1-oz vials, M.C.W.....oz	28
Arsenate, 1-oz vials oz	14	Bisulphate, 5-oz cans, M.C.W.....oz	26
Bicarbonate, cryst., M. C. W.....lb	20	Citrate, 1-oz vials, M.C.W.....oz	57
Bicarbonate, granulated, M. C. W.....lb	20	Muriate, 1-oz vials, M.C.W.....oz	51
Bicarbonate, powd. lb	20	Phosphate, 1-oz vials, M.C.W.....oz	55
Bichromate lb	18-20	Salicylate, 1-oz vials, M.C.W.....oz	54
M. C. W. lb	34	Sulphate, 1-oz cans, M.C.W.....oz	28
Bromide, crys. or gran., M. C. W.....lb	27-30	Sulphate, 5-oz cans, M.C.W.....oz	25
Carbonate, purified, M. C. W.....lb	41	Sulphate, 25-oz cans, M.C.W.....oz	21
Carbonate, bulk. lb	15	Sulphate, 50-oz cans, M.C.W.....oz	20
Caustic, pure lb	37	Sulphate, 100-oz cans, M.C.W.....oz	18
Caustic, C. P. lb	2 59	Sulphate, 1-oz cans, N. Y. Q.....oz	28
Chlorate, cryst. lb	16-18	Sulphate, 5-oz cans, N. Y. Q.....oz	25
Chlorate, gran., pure, M. C. W.....lb	22	Sulphate, 25-oz cans, N. Y. Q.....oz	21
Chlorate, powd. lb	16-18	Sulphate, 100-oz cans, N. Y. Q.....oz	18
Chloroplatinite, M. C. W., 15-gr vials..each	80	Sulphate, 1-oz cans, P. W. R.....oz	28
Chromate, yellow, neutral. lb	40	Sulphate, 5-oz cans, P. W. R.....oz	25
Citrate, M. C. W.....lb	66	Sulphate, 25-oz cans, P. W. R.....oz	21
Cyanide, fused, M. C. W.....lb	45	Sulphate, 100-oz cans, P. W. R.....oz	18
Cyanide, C. P. 99%.....lb	52	Tannate, Neutral oz	38
Cyanide, Miner's, 10-lb tin.....lb	28	Tannate, 1-oz vials, M.C.W.....,.....oz	37
Ferricyanide, chem. pure, M. C. W.....lb	1 04	Valerianate, 1-oz vials, M.C.W.....oz	57
Ferrocyanide, pure lb	59	QUINOLINE oz	45
Glycerinophosphate.. oz	26	Tartarate oz	45
Hypophosphite, M. C. W.....lb	99	QUINIDINE. N. Y. Q., 1-oz vial.....oz	85
Iodide, M. C. W., 1-lb boxes.....lb	2 52	Sulphate, N. Y. Q., 1-oz vial.....oz	75
Iodide, N. Y. Q., 1-lb boxes.....lb	2 52	RED SAUNDERS. lb	12
Iodide, cryst. or gran., 1-lb boxes, P.W.R.lb	2 52	RESIN, Jalap oz	54
Nitrate, cryst. lb	10-12	RESORCINOL (Resorcin) M. C. W.....lb	1 30
Nitrate, granulated. lb	10-12	Resorcinol (Resorcin) M. C. W.....oz	17
Nitrate, chemically pure, M. C. W.....lb	30	ROOT, Abscess, pressed, lb.....lb	40
Oxalate, neutral. lb	28	Aconite, powd.....lb	35
Permanganate, cryst., 1-oz vials.....oz	8	Aconite, pressed.....lb	32
Permanganate, large cryst., pure, M.C.W..lb	27	Copaiba. lb	1 50
Permanganate, small cryst.....lb	25	Scamony oz	40
Phosphate, 1-oz vials.....oz	11	Alkanet lb	25
Phosphate lb	64	Alkanet, powd.....lb	30
Prussiate, red. lb	65	Angelica, pressed lb	20
Prussiate, yellow. lb	35	Angelica, powd lb	25
Sulphate, cryst. or powd.....lb	16	Arnica, pressed lb	35
Sulphate, chemically pure.....lb	60	Belladonna, pressed, lb. lb	25
Sulphide (Liver Sulphur).....lb	24	Belladonna, powd.....lb	28
Tartrate (soluble Tartar).....lb	59	Berberis Aquif, pressed, lb.....lb	45
POWDER, Antimonial. lb	85	Beth, pressed, lb.....lb	30
Aromatic. lb	1 25	Beth, powd lb	35
Carbolic Acid, disinfecting.....doz	1 50	Blackberry, pressed, lb.....lb	30
Chalk, aromatic. lb	75	Blood, pressed, lb.....lb	30
Chalk, compound. lb	75	Blood, powd.....lb	35
Chalk and Opium. lb	2 50	Blue Flag, pressed lb	25
Composition, 2-oz papers.....lb	35	Burdock, pressed, lb. lb	25
Dover's lb	1 70	Burdock, powd.....lb	25
Insect, Buhach, 6-lb cans.....lb	60	Calamus, peeled lb	30
Insect, Dalmatian. lb	25-30	Calamus, white, peeled and split.....lb	50
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Calamus, powd.....lb	35

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Cohosh, black, pressed. lb	25	Rhubarb, East India, powd lb	75
Cohosh, black, powd. lb	25	Rhubarb, cut in cubes, No. 1.....lb	1 25
Cohosh, blue, pressed, lb.....lb	25	Rhubarb, cut in cubes, No. 2.....lb	1 00
Cohosh, blue, powd.....lb	25	Rhubarb, cut in fingers, No. 1.....lb	1 50
Colchicum lb	28	Rhubarb, cut in fingers, No. 2.....lb	1 25
Colchicum, powd lb	35	Salep, powd lb	1 00
Columbo, foreign. lb	25	Sarsaparilla, American lb	35
Columbo, powd.....lb	25	Sarsaparilla, American, powd lb	35
Comfrey, pressed, lb. lb	25	Sarsaparilla, Honduras lb	65
Comfrey, powd.....lb	25	Sarsaparilla, Honduras, ground.....lb	65
Cranesbill, pressed, lb.....lb	25	Sarsaparilla, Honduras, powd lb	65
Culvers, pressed, lb.....lb	25	Sarsaparilla, Mexican lb	20
Culvers, powd lb	30	Sarsaparilla, Mexican, ground lb	25
Dandelion, Am., pressed, lb.....lb	35	Sarsaparilla, Mexican, powd lb	25
Dandelion, powd lb	35	Senega, pressed lb	75
Dwarf Elder, pressed, lb.....lb	35	Senega, powd. lb	80
Elecampane, pressed, lb. lb	25	Senega, pressed lb	28
Elecampane, powd lb	25	Silkweed, pressed lb	30
Gelsemium, pressed, lb.....lb	25	Skunk Cabbage, pressed lb	35
Gelsemium, powd lb	25	Skunk Cabbage, powd lb	65
Gentian lb	18	Snake, Canada, pressed.....lb	65
Gentian, ground lb	20	Snake, Virginia lb	70
Gentian, powd lb	20	Snake, Virginia, powd lb	72
Ginger, African. lb	17	Spikenard, pressed lb	30
Ginger, African, powd lb	18	Spikenard, powd lb	20
Ginger, Jamaica, bleached. lb	27	Squills, white, sliced. lb	60
Ginger, Jamaica, bleached, powd.....lb	34	Squills, powd lb	25
Ginseng lb	8 50-10 00	Stillingia, pressed lb	30
Golden Seal lb	2 40	Stillingia, powd lb	25
Golden Seal, powd lb	2 40	Stone, pressed lb	25
Hellebore, black, pressed.....lb	25	Sweet Flag, pressed lb	28
Hellebore, black, powd.....lb	25	Turkey Corn lb	35
Hellebore, white, pressed, lb.....lb	25	Unicorn, true, pressed lb	40
Hellebore, white, powd.....lb	25	Unicorn, true, powd lb	40
Indian Hemp, black, pressed, lb.....lb	35	Unicorn, false, pressed.....lb	45
Indian Hemp, black, powd lb	40	Unicorn, false, powd lb	35
Indian Hemp, white, pressed lb	25	Valerian, English, bulk.....lb	35
Indian Hemp, white, powd lb	30	Valerian, English, powd lb	30
Ipecac, Rio, powd.....lb	2 50	Valerian, German lb	30
Jalap lb	30	Valerian, German, powd lb	25
Jalap, powd lb	35	Yellow Dock lb	30
Kava Kava lb	50	Yellow Dock, ground lb	30
Ladies' Slipper, pressed, lb.....lb	75	Yellow Dock, powd lb	30
Licorice, select lb	16	Zedoary lb	6-8
Licorice, pipestem lb	18	ROSIN, No. 1. lb	7 75
Licorice, cut, Russian lb	20	Barrel. lb	50
Licorice, powd lb	16-20	ROUGE, Jewelers' lb	35
Mandrake, pressed, lb.....lb	30	SACCHARIN tin	60
Mandrake, powd lb	35	SAFFRON, American lb	80
Marshmallow, cut lb	34	Spanish. oz	10 50
Marshmallow, powd lb	35	Spanish lb	30
Musk lb	30	SAL, Acetosella lb	2 1/2-5
Orris, Florentine lb	25	Epsom lb	1 1/2-4
Orris, Florentine, Fingers.....lb	1 25	Glauber lb	10-12
Orris, Florentine, granulated.....lb	35	Nitre lb	10-12
Orris, Florentine, powd.....lb	30	Nitre, granulated. lb	10-12
Pareira Brava, pressed lb	34	Nitre, powd. lb	45
Pink. lb	85	Prunelle lb	28-30
Pink, powd. lb	90	Rochelle. lb	3-5
Pleurisy, pressed lb	25	Soda. lb	15
Poke, pressed lb	25	Tartar. lb	37
Poke, powd lb	20	SALICINE lb	4 60
Pond Lily, white, pressed lb	40	lb	1 00
Pond Lily, white, powd lb	40	SALIPYRINE oz	15
Pond Lily, yellow, pressed lb	30	SALOL, Mallinckrodt's.....oz	1 17
Pond Lily, yellow, powd lb	35	Salol, Mallinckrodt's, cartons lb	1 00
Rhatany lb	30	SALOPHEN oz	8 00
Rhatany, powd lb	35	SANTONIN, bulk, M. C. W.....lb	60
Rhubarb, East India lb	75	1-oz vials, M. C. W.....oz	25
		SEED, Angelica lb	

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Anise, Italian	lb	20	Rappee	lb	65
Anise, Italian, powd.....	lb	25	Rappee, 3 1/3-oz bots.....	doz	2 00
Anise, Star	lb	45	Scotch, Lorillard's	lb	65
Bird, mixed, bulk.	lb	8	Scotch, Lorillard's	doz	2 00
Bird, mixed, boxes.	doz	1 00	Scotch, Garrett's Bladders.....	lb	55
Bird, mixed, cases, 30 pks.....		2 25	SOAP, Castile, Conti's, white, box 14c less..	lb	17
Burdock	lb	25	Castile, mottled, box 8 1/2c; less.....	lb	12
Canary	lb	9-10	Castile, powdered, white.....	lb	35
Carraway, Dutch.	lb	15	Green, German	lb	25
Carraway, powd.	lb	17	Opodeldoc	lb	65
Cardamon, Malabar.	lb	1 00	SODA, Ash.	lb	2 1/2-5
Cardamon, Mangalor, bleached.....	lb	1 25	Caustic, Sticks	lb	34
Cardamon, powd.	lb	1 00	Caustic, com., drums.....	lb	3-4
Celery	lb	25	Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2
Colchicum.	lb	50	Caustic, purified, fused.....	lb	40
Colchicum, powd.	lb	55	Sal (carbonate) bbls., 1 1/4c.....	lb	3
Conium	lb	25	Soda Silicate, dry	lb	35
Coriander, German.	lb	14	Soda Silicate, liquid.....	lb	15-25
Coriander, German, powd	lb	20	SODIUM, 1-oz vials, M. C. W.....	oz	25
Cumin	lb	18-20	Acetate, M. C. W., carton.....	lb	17
Dill	lb	25	Arseniate, 1-oz vials.....	oz	9
Fennel.	lb	18	Arsenite, 1-oz vials, M. C. W.....	oz	10
Fennel, powd.	lb	20	Benzoate, 1-oz vials, M. C. W.....	oz	11
Flax, recleaned.	lb	5 1/2-6	Benzoate, 1-lb bots.	lb	56
Flax, ground.	lb	5 1/2-6	Benzoate, true fr. Gum Benzoin.....	oz	29
Flax Oil Cake	lb	2 1/2-3 1/2	Bicarbonate, C. P., powd., M. C. W.....	lb	15
Foenugreek, powd	lb	12	Bicarbonate, kegs, 3c.....	lb	4-5
Hemp, recleaned	lb	6 1/2-8	Bisulphite, dry, pure	lb	27
Henbane	lb	35	Borate, neutral	oz	19
Larkspur.	lb	55	Bromide, M. C. W.....	lb	32
Lobelia.....	lb	60	Cacodylate	oz	84
Lobelia, powd.	lb	65	Carbonate, pure cryst., 1-lb car., M. C. W..	lb	11
Millet, American.	lb	6-8	Carbonate, pure gran., 1-lb car., M. C. W..	lb	11
Mustard, black, Trieste	lb	10-12	Carbonate, dried, C. P., 1-lb car.....	lb	27
Mustard, white	lb	10-10	Cinnamate	oz	59
Poppy Blue	lb	16	Citrate, M. C. W.....	lb	67
Pumpkin	lb	22	Glycerophosphate, 75%	oz	24
Rape, California.	lb	6-8	Glycocholate.	oz	1 04
Quince	lb	85	Hypophosphite, purified	lb	1 14
Sabadilla	lb	35	Hypophosphite, 1-oz vials	oz	15
Sabadilla, powd	lb	30-35	Hyposulphite, 112-lb kegs.	lb	3
Stavesacre	lb	40	Hyposulphite, less	lb	5
Stavesacre, powd	lb	45	Iodide, 1-oz vials, M. C. W.....	oz	31
Stramonium	lb	25	Iodide, M. C. W.....	lb	3 53
Stramonium, powd	lb	30	Nitrate, cryst., C. P.....	lb	29
Sunflower	lb	15	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Watermelon	lb	25	Phosphate, pure, recryst., bulk.....	lb	12
Worm, American	lb	25	Phosphate, gran., pure, M. C. W.....	lb	13
Worm, American, powd	lb	25	Phosphate, dried, powd.....	lb	24
Worm, Levant	lb	35	Salicylate, 1-lb box, P. W. R.....	lb	50
Worm, Levant, powd	lb	40	Salicylate, 1-lb box, M. C. W.....	lb	50
SEIDLITZ MIXTURE	lb	28-30	Santoninate	oz	89
SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19	Succinate	oz	45
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, Glauber Salts.....	lb	3-5
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, dried	lb	18-20
Lactate	oz	1 04	Sulphite, crystals	lb	10
Nitrate, cryst., 1-oz vials, M. C. W.....	oz	53	Sulphite, granulated	lb	18
Nitrate, cones, 1-oz vials.....	oz	65	Sulphite, dry	lb	22
Nitrate, fused (Lunar caustic), 1-oz vials,			Tartrate	lb	64
M. C. W.	oz	56	SOLUTIONS, Donovan's	lb	34
Nitrate, cryst., 1-oz vials, P. W. R.....	oz	53	Fowler's	lb	30
Nitrate, cryst., 1-lb vials, P. W. R.....	lb	8 25	Goulard's	lb	35
Nitrate, fused, No. 2, 1-oz vials.....	lb	42	Nitrate, Iron	lb	50
SNUFF, Garrett's, 1-oz tins.....	doz	60	Mercury, Nitrate	oz	20
Garrett's, 1 1/3-oz tins.	doz	1 10	Monrel's	lb	50
Garrett's, 3 1/3-oz tins.....	doz	1 75	Tin, Chloride	lb	35
Garrett's, 6-oz bots.....	doz	3 25	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Somatose, Ferro, 2-oz tins.....	doz	10 50

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Somatose, 2-oz tins.....doz	8 25	Sicily, ground.....lb	5
Somatose, 1¼-lb tins.....lb	5 25	Strips.....lb	15
Somatose, 1½-lb tins.....lb	5 00	Washed.....lb	15
SOZOIODOL, Mercury.....oz	1 15	SUMAC.....lb	10
Potassium.....oz	75	SYRUP, Ginger, U. S. P.....lb	65
Sodium.....oz	80	Hydriodic Acid.....lb	70
Zinc.....oz	1 10	Iron Iodide.....lb	65
SPARTEINE, Sulphate, ⅛s.....oz	83	Ipecac.....lb	60
Sulphate, 15-gr. vials.....ea	12	Lactucarium.....lb	1 00
SPERMACEI, in cakes.....lb	42-45	Orange Peel.....lb	65
SPIRIT, Ammonia.....lb	75	Rhubarb.....lb	60
Ammonia, aromatic.....lb	85	Rhubarb, Aromatic.....lb	65
Camphor.....lb	75	Rhubarb and Potash.....lb	65
Chloroform, U. S. P.....lb	75	Sarsaparilla.....lb	65
Lavender.....lb	60	Sarsaparilla, comp.....lb	65
Nitre, U. S. P., 1-lb bots.....lb	65	Senna.....lb	65
Nitre, U. S. P., 4-lb bots.....lb	58	Senega, U. S. P.....lb	65
Nutmeg.....lb	75	Simple.....lb	35
Pimento.....lb	65	Squill.....lb	60
Rosemary.....lb	65	Squill, comp.....lb	60
STEARIN.....lb	20	Stillingia, comp.....lb	60
STONE, Pumice, select.....lb	10	Tolu.....lb	60
Pumice, select, powd.....lb	8-10	Wild Cherry.....lb	60
Rotten.....lb	12-15	Yerba Santa comp.....lb	65
Rotten, powd.....lb	10	TALCUM, powdered.....lb	6-8
Soap, cut.....lb	18	Purified.....lb	20-25
Soap, powd.....lb	8	TAMARINDS, pound bottles.....lb	25
STRONTIUM, Bromide, cryst., M. C. W.....oz	11	Keg.....ea	4 50
Carbonate, M. C. W.....lb	34	Pulp.....lb	50
Hypophosphite, M. C. W.....oz	29	TANNALBIN.....oz	85
Iodide, 1-oz vial, M. C. W.....oz	30	TANNIN, 1-lb cartons, incl., Reg.....lb	85-90
Lactate.....oz	16	Tannin, U. S. P.....lb	1 15
Muriate, M. C. W.....lb	32	TANNIGEN.....oz	75
Nitrate, pure, dried.....lb	59	TANNOFORM.....oz	22
Salicylate, M. C. W.....lb	83	TANNOPINE.....oz	75
Sulphate, M. C. W.....lb	69	Veterinary.....oz	25
STYPTICIN.....oz	6 50	TAR, Barbadoes.....lb	25
STRYCHNINE, Acetate, ⅛-oz vials, M.C.W.....oz	1 75	Coal.....gal	25
Arsenate, ⅛-oz vials, M. C. W.....oz	1 75	Pine, bulk.....gal	40
Bromide, ⅛-oz vials, M. C. W.....oz	1 75	Pine, ½-lb cans.....doz	75
Citrate, ⅛-oz vials, M. C. W.....oz	1 75	Pine, 1-lb cans.....doz	90
Crystals, ⅛-oz vials, M. C. W.....oz	1 15	Pine, 2-lb cans.....doz	1 50
Hypophosphite, ⅛-oz vials, M. C. W.....oz	2 00	Pine, gal cans.....doz	6 00
Muriate, ⅛-oz vials, M. C. W.....oz	1 75	TARTAR EMETIC, M. C. W.....lb	50
Nitrate, ⅛-oz vials, M. C. W.....oz	1 75	TEREBENE, 1-lb bottles.....lb	79
Phosphate, ⅛-oz vials, M. C. W.....oz	1 80	oz	14
Sulphate, ⅛-oz vials, M. C. W.....oz	1 45	TERPIN HYDRATE, cryst.....oz	9
Sulphate, 1-oz vials, M. C. W.....oz	1 25	Pounds.....lb	55
Sulphate, 1-oz vials, P. W. R.....oz	1 25	TERPINOL, Liquid.....oz	47
Crystals, 1-oz vials, N. Y. Q.....oz	95	THEOBROMINE, Alkaloid.....oz	90
Crystals, in bulk, N. Y. Q.....oz	90	And Sodium Salicylate.....oz	60
Powdered, in bulk, N. Y. Q.....oz	85	THIOL, dry.....oz	1 00
Powdered, ⅛-oz vials, N. Y. Q.....oz	1 10	Liquid.....oz	40
Powdered, 1-oz vials, N. Y. Q.....oz	90	THYMOL, 1-oz vials.....oz	27
STYRAX, liquid.....lb	60	Pounds.....lb	3 10
SUGAR, burnt.....lb	25	THYROIDIN.....oz	1 30
Grape.....lb	25	TIN, Chloride.....lb	53
Milk, crystals.....lb	30	Metallic, feathered.....lb	1 00
Milk, powd., bulk.....lb	23	Muriate, solution.....lb	35
Milk, powd., M.C.W., 1-lb cartons.....lb	25	Oxide, white, pure.....lb	99
SULFONAL, 1-oz vials.....oz	1 35	TINCTURE, Aconite Leaves.....lb	65
SULPHON-ETHYL-METHANE.....oz	60	Aconite Root.....lb	75
SULPHON-METHANE.....oz	50	Aconite Root, Fleming's.....lb	90
SULPHUR, California, ground, 110-lb bags.....lb	2	Aloes.....lb	65
Flowers.....lb	5	Aloes and Myrrh.....lb	65
Flowers, in bags.....lb	2¼-3	Arnica.....lb	65
Iodide.....oz	38	Asafœtida.....lb	65
Lac., precip.....lb	18	Belladonna.....lb	65
Roll, bbl.....lb	2¼-5		

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Benzoin	lb	75	TRIONAL	oz	1 50
Benzoin, comp.....	lb	75	TRIPOLI, bulk	lb	8-12
Blood Root	lb	65	TURPENTINE	gal	95
Buchu	lb	65	In case	gal	90
Cantharides	lb	75	Chian	oz	45
Capsicum	lb	65	Venice	lb	35
Cardamom	lb	75	URANIUM, Acetate, 1-oz vials	oz	59
Cardamom, comp.....	lb	75	Chloride, 1-oz vials	oz	47
Catechu, comp.....	lb	75	Nitrate, 1-oz vials	oz	45
Cinchona, comp.....	lb	75	Sulphate, 1-oz vials	oz	47
Cinnamon	lb	65	UROTOPIN	oz	60
Colchicum Root	lb	75	Tablets, 20 in box.....	box	25
Colchicum Seed	lb	75	UNGUENTUM CREDE; ½-oz jars.....	oz	90
Columbo	lb	60	URETHANE	oz	54
Conium	lb	65	VANILLIN, 1-oz vials.....	oz	75
Cubebs	lb	65	VERATRINE, pure, ½-oz vials.....	oz	2 40
Digitalis	lb	65	VERONAL, powd.....	oz	1 60
Ergot	lb	75	Tablets, 10c.	ea	30
Ergot, ethereal	lb	80	Tablets, 100s	ea	2 25
Galls	lb	60	VERDIGRIS	lb	40
Gelsemium	lb	75	Powdered	lb	45
Gentian	lb	60	WATER, Cherry, Laurel.....	pt	50
Gentian, comp.....	lb	65	Chlorine	lb	40
Ginger	lb	65	Distilled.	gal	8
Guaiaac	lb	75	Elder Flower	lb	50
Guaiaac, ammoniated	lb	75	Orange Flower, triple.....	lb	35
Guaiaac, Dewees'	lb	75	Orange Flower	gal	2 00
Hyoscyamus	lb	65	Orange Flower, Chiris, small.....	doz	2 00
Iodine.	lb	1 40	Orange Flower, Chiris, large.....	doz	3 75
Iodine, colorless.	lb	1 40	Rose, triple	lb	40
Iodine, comp.	lb	1 40	Rose	gal	2 00
Iodine, Churchill's.	lb	1 75	Rose, Chiris, 6¾-gal coppers.....	gal	1 75
Ipecac	lb	80	Rose, Chiris, small.....	doz	2 00
Iron Acetate	lb	65	Rose, Chiris, large.....	doz	4 00
Iron Chloride	lb	50	WAX, Bayberry	lb	45
Iron Citro-Chloride	lb	65	Bees, yellow, refined.	lb	37-40
Jalap	lb	65	Bees, yellow, oz.	lb	45
Kino	lb	75	Bees, white, extra.	lb	60
Lobelia	lb	60	Bees, white, No. 1.	lb	55
Lobelia, ethereal	lb	65	Bowdlear's 1-lb cartons	doz	4 20
Myrrh	lb	75	Fruit, can, red.....	lb	8
Myrrh and Capsicum.....	lb	75	Fruit, can, white	lb	8
Nux Vomica	lb	65	Japan	lb	18-20
Opium	lb	1 25	WAX, FLOOR	lb	25-38
Opium, camphorated	lb	60	Johnson's, 1-lb cartons.....	doz	4 00
Opium, deodorized	lb	1 30	Johnson's, ½-lb cartons.....	doz	2 25
Orange Peel	lb	65	Johnson's, ¼-lb cartons.....	doz	1 40
Quassia	lb	60	WHITING, Gilders'	lb	3
Rhatany	lb	60	Spanish	lb	2½
Red Saunders	lb	65	WINE, Antimony	lb	65
Rhubarb	lb	65	Aromatic	lb	65
Rhubarb, Aqueous	lb	60	Colchicum Root	lb	75
Rhubarb, Aromatic	lb	70	Colchicum Seed	lb	65
Rhubarb, comp.....	lb	65	Ergot	lb	1 25
Rhubarb, Sweet	lb	65	Ipecac	lb	1 25
Rhubarb and Aloes.....	lb	65	WOOD, Brazil, ground.....	lb	10
Rhubarb and Senna.....	lb	65	Camwood	lb	10
Senna	lb	65	Fustic, cut	lb	3½-5
Senna, comp.....	lb	65	Fustic, ground	lb	6
Serpentaria	lb	65	Guaiac, rasped	lb	10
Stramonium Leaves	lb	65	Hypernic.	lb	8-10
Stramonium Seed	lb	65	Logwood, chip.	lb	8-10
Strophanthus	lb	1 25	Logwood, ground.	lb	8-10
Tolu	lb	75	Nic.	lb	8-10
Valerian	lb	65	Quassia, chip.	lb	15
Valerian, ammoniated	lb	85	Quassia, ground.	lb	18
Veratrum Viride	lb	65	Quassia, powdered.	lb	18
Warburg's	lb	1 75	Red Sanders, ground.	lb	12
TRIKRESOL, S. & G.....	lb	60	Red, cut.	lb	10
TRIMETHYLAMINE	oz	55			

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XANTHOXYLIN, Keith's	oz	1	13	Apollinaris, 50 qt bots in case.....	8 50	2 25
XYLOL	lb		70	Apollinaris, pints.	12 00	1 60
ZINC, Acetate, 1-lb bottles, M. C. W.....	lb		43	Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Benzoate	oz		24	Bartlett, 50 qt. bots. in case.....	8 00	2 25
Benzoate, 1-oz vials, M. C. W.....	oz		24	Bethesda, 50 qt. bots. in case.....	7 50	2 25
Carbolate, 1-oz vials, M. C. W.....	oz		24	Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Carbonate, precipitate, 1-lb cartons.....	lb		25	Bythia Water	10 00	2 50
Chloride, fused, 1-oz vials	oz		13	Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Chloride, granulated	lb		33	Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Cyanide, 1-oz vials, M. C. W.....	oz		21	Congress (Saratoga), 48 bots. in case..	8 00	2 50
Hypophosphite, 1-oz vials	oz		29	Franz Joseph, 50 bots. in case.....	11 00	3 00
Iodide, 1-oz vials, M. C. W.....	oz		37	Garrod Spa Lithia, pints.....	6 00	2 00
Metallic, pure, feathered.....	lb		27	Garrod Spa, Lithia, ½-gal.....	....	5 00
Oxide, English, Hubbuck's.	lb		50	Hathorn, 48 pt. bots. in case.....	8 00	2 50
Oxide, pure, M.C.W.	lb		30	Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Permanganate	oz		52	Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Phosphate, M. C. W.....	oz		10	Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Phosphide	oz		23	Londonderry Lithia, ½ gallons.....	9 50	6 50
Sulphate, cryst.....	lb	8-10		Londonderry Lithia, 100 pints.....	13 50	1 75
Sulphate, cryst., chemically pure, M.C.W..	lb	18		Poland, qts. ....	....	5 00
Sulphide, 1-oz vials, M. C. W.....	oz	16		Rackoczy Kissengen .....	....	5 00
Sulphocarbonate, M. C. W.....	lb	59		Red Raven Splits.	5 00	1 35
Sulphocarbonate, 1-oz vials, M. C. W....	oz	11		Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Sulphate, H. P.	lb	15		Veronica .....	....	5 50
Sulphate, dried, H. P.....	lb	25		Vichy Water Celestine	10 25	3 00
Sulphocarbonate	oz	11		Risk of breakage is assumed by buyer.		
				Villacabras Water, qts., 50 bots. in case	17 50	4 50
				Witter, 36 bots in case.....	12 00	4 50
				White Rock Splits.	9 90	1 20
				White Rock, pints	11 50	1 50
				White Rock, quarts.	8 85	2 25

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65

(Cash discount 5% on case prices White Rock.)

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.



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in Brushes for 57 years.

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"STILL" GARROD SPA, in half-gallon bottles, price 60 cents each
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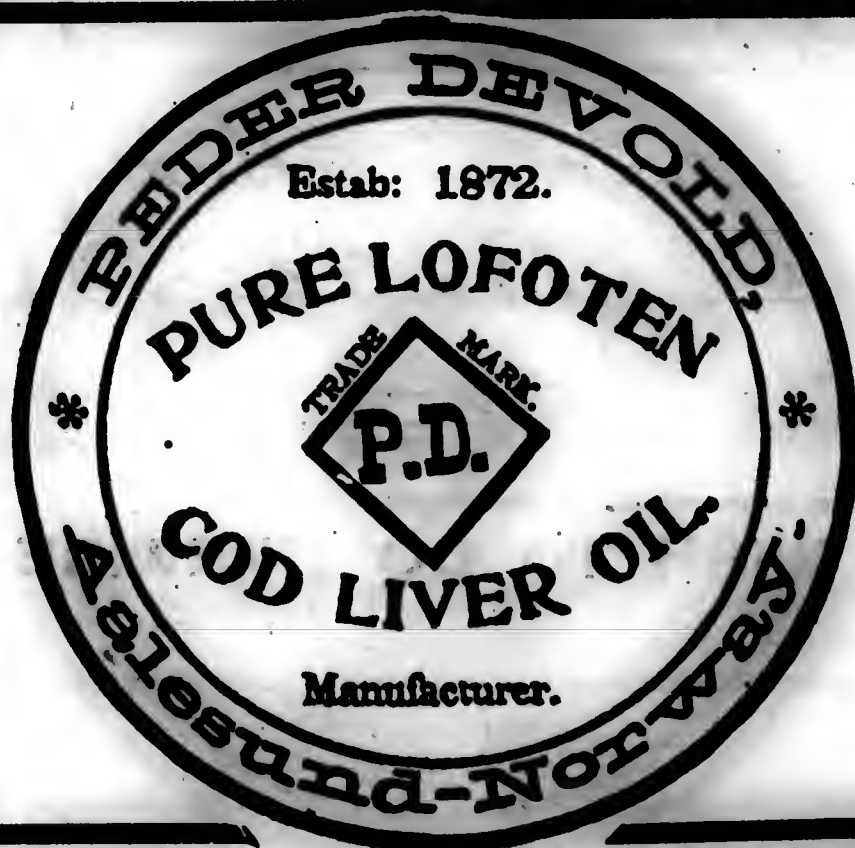
"SPARKLING" GARROD SPA, in pint bottles, price \$2.00 a
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The "SPARKLING" GARROD SPA is well charged with gas, and is a pleasant beverage, used by many as a table water. *This is the kind most used*

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Red Marks on:

30 Gallons
Whole Barrels.
15 Gallons
Half Barrels.
5 Gallons
Sealed Tins.

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BEST for that baby and that
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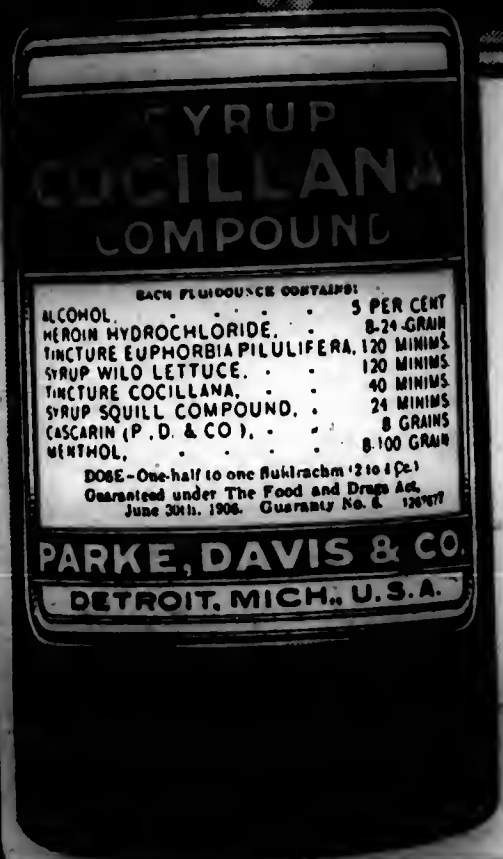
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VOL. 1

MARCH, 1908

No. 11

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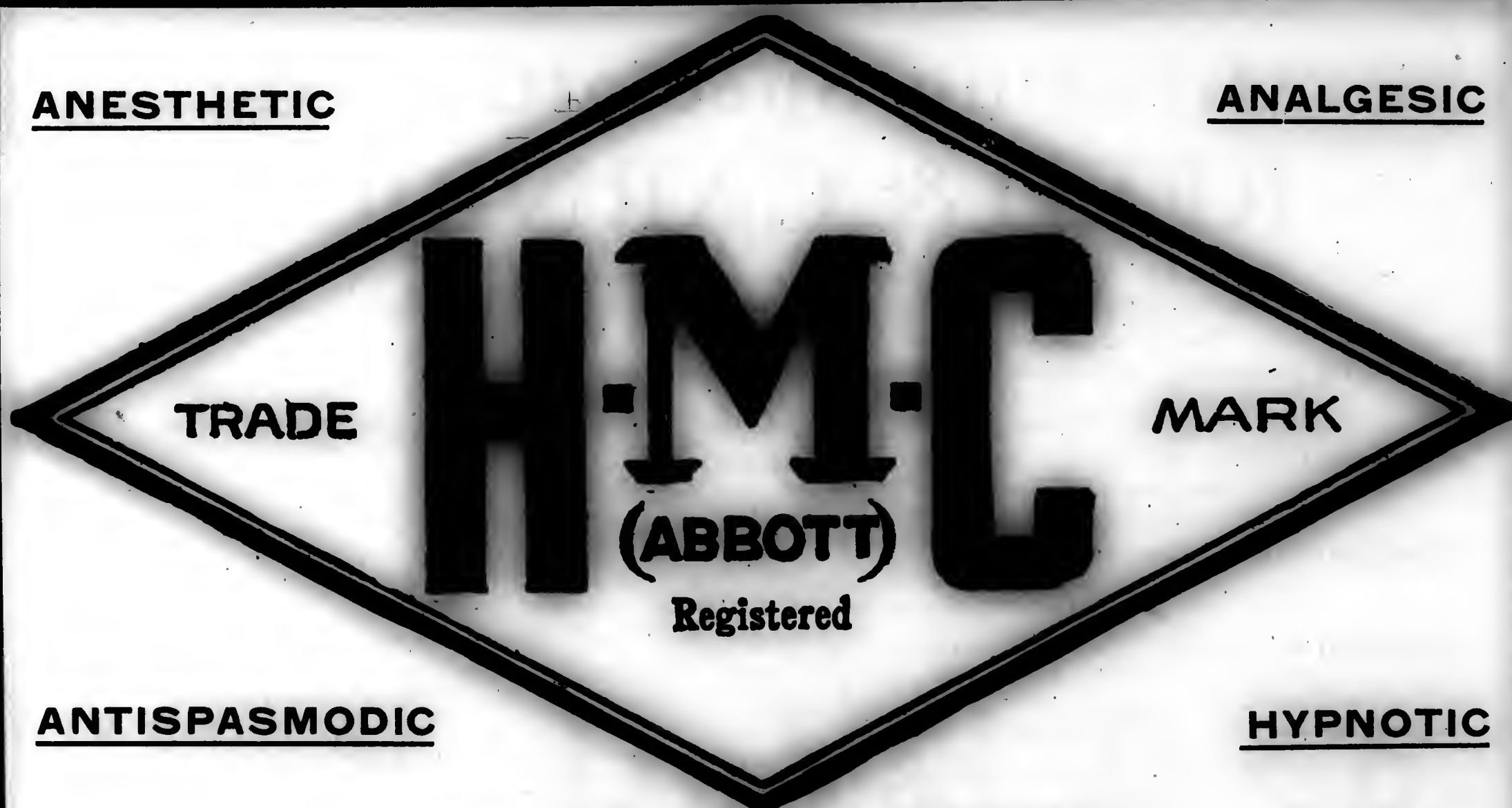
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Official Organ of the California Pharmaceutical Association

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

Entered as second-class matter September 30, 1907, at the postoffice at San Francisco, California, under the Act of Congress of March 3, 1879.

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Address all communications and make all checks and money orders payable to THE PACIFIC PHARMACIST.

Communications on questions pertaining to Pharmacy and the Drug Business are solicited. The name of the writer should accompany every article, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

**NOTE—The office of the Pacific Pharmacist has been removed to
723-728 Pacific Building, 4th and Market Streets**

Editorial Notes

PACIFIC PHAR- MACEUTICAL ASSOCIATION

We call the attention of our readers to a short report of the committee appointed at the last meeting of the California Pharmaceutical Association, last November, to make arrangements for the next meeting of the Coast Association, when it is expected that a permanent organization will be effected.

It will be noticed that some alterations have been suggested which, if adopted, will change the membership of that body. Just now California, at least, is not in a position to undertake the support of two organizations, each officered and equipped with all the ma-

chinery of an independent body. By meeting at the same time as a State Society, the expenses will be nominal and can easily be borne by the State associations that enter into membership. We expect to see this plan adopted. If it should seem best at a later date to change this, it can be done.

This movement ought to succeed. The pharmacists west of the Rockies are so scattered that they see but little of each other. The leading druggists of the Coast States scarcely know each other, even by name, and practically never meet for conference on questions of scientific or commercial interest. Neither do they come in touch with

their brethren in the Eastern States. At the last meeting of the American Pharmaceutical Association these three States were represented by two men only, both of them connected with Colleges of Pharmacy, and neither of them actively engaged in the drug trade. That is not as it should be, but there are few druggists who can afford the time and money needed for a trip to New York, costing \$200 to \$250, and consuming nearly three weeks' time. Here we are reasonably near to each other. The cost of transportation is not great, and the trip can be made by most persons in from 12 to 36 hours. This year the meeting will be at Oakland, Cal. The next meeting will probably be at Portland, Seattle or Los Angeles. It does us all good to see a little more of our own part of this great country. Let us acquire the **habit** of attending the meetings of this Association. We shall get impetus from each other. California needs this we know. We think Oregon and Washington need it just as much.

THE FLEET'S ARRIVAL

The fleet is scheduled to arrive here on May 10th. They will be here all through May. Cheap excursion rates will prevail to bring people from all parts of the Coast to see the greatest naval sight the world has ever witnessed. To stand on the hills on either side of the bay and look down upon that vast Armada, all visible at one panoramic view, will be a sight never to be forgotten. There will be "something doing" here every day. We expect from Oregon and Washington full delegations to the Pacific Pharmaceutical Association on May 21st. Our State Association will surely be well represented, and we anticipate a meeting that will yield pleasure and profit to all.

The Oakland druggists are laying

their plans to entertain the California and Pacific Pharmaceutical Associations. It is true they have not as many grand old ruins to show as San Francisco has, but they have other and greater attractions—things that in the garden of Eden caused poor mother Eve to fall—things that are pleasant to the eyes and good for food—and these we are promised. Moreover, they are trying to get back into the garden, where love and mutual confidence first reigned, and we hope they will soon get there. A good turn-out of the Pacific Association might help them.

PHARMACISTS IN THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE

For many years the status and compensation of pharmacists in the Army, Navy and Marine Hospital Service have been such that the editor of this journal has discouraged graduates in pharmacy from entering the Government's employ except from patriotic motives, as in the Philippine war, when seven of his "boys" volunteered to help Uncle Sam out of his little "unpleasantness." Efforts have been repeatedly made to secure a betterment of the existing conditions, but to no purpose. It now seems as if there was a prospect that something might be done. Congress is taking a hand in the subject in connection with the readjustment and increase of the pay of officers of the army and navy, in which category come the physicians and pharmacists. In order that pharmacists in the Public Health and Marine Hospital Service may be assured of some relief, Representative Haskins of Vermont has introduced a bill into the House specially dealing with their case. The bill provides that these shall be divided into three grades: pharmacists, passed assistant pharmacists, and assistant pharmacists. The compensa-

tion is fixed at \$2,000 per annum for pharmacists, \$1,800 for passed pharmacists, and \$1,600 for assistant pharmacists. The last receive additional pay every five years, amounting to 10% of the fixed salary. Furnished quarters, fuel, light and water are provided for all. The bill has been referred to the Committee on Expenditures of the Treasury Department. Unless some interest is shown in it, there is danger that it may never be reported by the committee. Druggists should write to their Congressman to support the measure and, if necessary, to be active in seeing that it is not killed in committee.

PHARMACISTS IN THE ARMY AND NAVY A serious obstacle that has stood in the way of improvements in the status of pharmacists in the Army and Navy is said to have been the determination of the medical men in the service to do nothing to change the condition of the pharmacists until their own grievances were redressed. As this is now likely to be effected, pharmacists should endeavor to enlist the interest of their Senators and Congressmen in the question, and see that the intolerable derating of graduated pharmacists to the level of uneducated hospital stewards, with its attending social degradation, is forever done away.

A NATIONAL BOARD OF PHARMACY One of our contributors would like to have a National Board of Pharmacy, which should issue certificates which would entitle their holders to practice pharmacy for life in any state in the Union. We should like that, too, and so doubtless would everybody. But we shall have to get on without certificates that the several states are bound to recognize, until the

states voluntarily surrender their right to govern their own affairs. So long as the practice of medicine, dentistry, and pharmacy is regulated by state enactment, so long will a National State Board be unable to compel the State Boards to recognize their certificates. The only remedy so far adopted has been the voluntary exchange of state certificates. However desirable it may be that this practice should be universal, a comparison of the examination questions of the different boards will show any one that it can only be carried out to a very limited extent. Next month we will publish the examination questions submitted to candidates by the boards of Louisiana and Pennsylvania. The former are much easier than the latter. It is safe to say that a large proportion of those who failed at the Pennsylvania examination might reasonably expect to pass the Louisiana board, and in like manner many who succeeded with the latter board would surely fail if they went to Pennsylvania. This is only what is to be expected. The Pennsylvania law requires that every one who presents himself for examination shall have a college diploma. There is no such provision in the Louisiana law. Educational matters in general are much more advanced in the Northern than in the Southern states, and these inequalities obtain all over the country. Under existing conditions, therefore, a general interchange of certificates is impossible.

To the writer's mind there is just one other possibility which was shown in our issue for August, 1907, p. 164, *et seq.* The idea there advanced was "to select a national board, whose examinations would be of a higher character than those of any state board, and whose certificates would, by reason of their high grade, be accepted by

all state boards." While there are some difficulties in the way of carrying out this plan, they are such as could be overcome. In no other way can an interchange of certificates be effected without reducing the general standard to the level of the lowest, and that is not to be thought of.

CORN SYRUP VS. GLUCOSE

The animated controversy that has been going on for some time between the Board of Food Inspectors and the glucose manufacturers, represented by the Corn Products Company, has terminated in a victory for the latter, who are now permitted to label their glucose product "Karo Corn Syrup." The Board of Inspectors decided against the glucose manufacturers, but the latter had enough influence with Secretaries Wilson, Cortelyou, and Straus to induce them to overrule this decision. Now, we like glucose, and enjoy the eating of it, whether in the form of the toothsome marshmallow or other wholesome candies; we do not even object if it is served up to us as "corn syrup" with our buckwheat cakes, but this decision of the secretaries comes to us with an unwholesome flavor. The Board of Food and Drugs Inspection decided that syrupy glucose would not be correctly labeled if designated as corn syrup, because the name syrup was understood by almost all persons who bought it to be a cane-sugar product, and the foundation principle of the Pure Food and Drugs Act is that everything should be sold under absolutely truthful representations. In the public mind "syrup" is a compound of water, cane-sugar, invert sugar and a small amount of salts and other harmless impurities from the sugar-cane. "Corn syrup" consisting of water, glucose, maltose and dextrine made from

corn, colored to resemble the "syrup" of our grandmothers, and flavored with a small percentage of refiner's syrup, is certainly a very different substance, and the purchaser ought to know it. To conceal from the purchaser the true nature of the food he is buying is a violation of the very spirit of the law, and that is just what the United States Government, through the Secretaries, has authorized the Corn Products Company to do.

If the Government wishes to promote the glucose industry, and we see no reason why they should not do it, let them formulate a "purity rubric," designating the amount and kind of impurities that may be left in it without detriment to health, and let the manufacturers sell it for what it is, by a name that will not mislead purchasers into believing that they are buying something else. If the public will not buy it under a name that declares its real nature, it seems clear to us that the selling of it as "corn syrup" is done to deceive. By yielding to the pressure of the wealthy glucose manufacturers, the Government has set a most dangerous precedent. Every large interest whose pockets are threatened by the impartial operation of the Pure Food and Drugs Law, finding the decisions of the Board of Food and Drugs Inspectors unfavorable to them, may now be expected to appeal to the Secretaries, and possibly to the President himself, to override the decisions of the Inspectors, and should the Government yield, one of the best laws the country has ever had may be nullified.

Glucose Healthful

The above was written without any desire to underestimate the value of glucose as a food, or to interfere with its manufacture. Pure glucose is a good, wholesome food, and the public is gradually

getting to recognize it as such. We are glad even to encourage its use where it can take the place of cane-sugar at less cost. While it is not as sweet as cane-sugar, there are many uses to which the latter is put for which it can be employed. But we do object to Secretaries Wilson, Cortelyou, and Straus overruling the decision of the Board of Food and Drugs Inspection, for no other reason apparently than to enable a certain article of commerce to be sold to people who would not buy it if they knew what it was. While the prejudice against the name glucose is senseless, manufacturers and dealers are not to be excused for offering purchasers the thing they do not want by presenting it under a name that conceals its real nature. "Call a spade a spade" is the motto of the Commission, and the Government erred in overruling them.

A COMBINATION PRESCRIPTION BLANK "Drugs and Sundries," a spicy and very readable journal, edited by our former colleague, J. Winchell Forbes, now of Cincinnati, publishes a copy of a prescription blank, the back of which is as follows:

WETTERSTROEM'S PHARMACY, 3935 Spring Grove Ave. Near Cooper St. CINCINNATI, OHIO. Phone 352 Park.	MEININGER'S PHARMACY, N. W. Cor. Hamilton and Chase Aves. CINCINNATI, OHIO. Phone 374 Park.
Specify U. S. P. and N. F. Preparations.	
BRISTLE'S PHARMACY Spring Grove Ave. and Höfner St. CINCINNATI, OHIO. Phone Park 353.	KUTCHBAUGH'S PHARMACY 1707 Blue Rock St., opp. Lakeman, Cumminsville, Cincinnati, O. Phone 358 Park.

This is better than a sermon. It is a practical living out of the principle, "Live and let live." Furthermore, the appeal to the medical profession to "prescribe U. S. P. and N. F. preparations," is a challenge. It shows that these four pharmacists are prepared to supply preparations that will bear the scrutiny of those who administer the

Pure Food and Drugs Law—that they live up to the national standards. Such fraternity and such propagandism are most commendable.

COMMERCIAL PHARMACY The course of lectures given to the senior class of the California College of Pharmacy has been much enjoyed by the students, and will be of great value to them in days to come. Some idea of the topics treated may be gathered from the short reports we have given of them in our issues for February and March. The directors regarded it as an experiment to have this course, but it is an experiment no longer. They will see that in future it forms a part of their regular curriculum.

OUGHT TO PASS Congressman McKinley's bill (H. R. 3892) appropriating \$400,000 to be used in conjunction with a similar sum to be appropriated by the State of California to do such dredging, embanking, etc., as may be necessary to control the waters and protect the lands along the Sacramento and San Joaquin Rivers. This work was suggested by the Dabney Commission and ought to be done. It means a great deal for California to prevent the destructive floods that now so often cause enormous loss to the residents of that portion of the State.

PURE FOOD AND DRUG LAWS AND REGULATIONS There is the Federal or National Pure Food and Drugs Law; there is likewise a State law covering practically the same ground. As we glance through a copy of the ordinance of San Francisco, and of other cities, we again run across rules and regulations governing the sale of foods and drugs. An attempt to familiarize one's self with

these laws, rules and regulations is most perplexing and confusing.

Which law takes precedence? Must all of the regulations be followed to the letter, or according to the spirit? How is it possible to get the correct legal interpretation of the various laws and regulations? Is it advisable or possible to employ legal luminaries capable of so interpreting these laws as to render them intelligible to the average mind? Is it perhaps better to take chances on interpreting the laws according to the light that shines within, hoping that perhaps the average minion of the law, **whose solemn duty** it is to catch law breakers, is no more capable of deciding whether or not you are a law-breaker than you are yourself?

There is undoubtedly an excess of legislation. In the words of Mrs. Katzenjammer, "Too much of plenty is enough." We have too much legislation. We need just a little of the right kind of legislation. Have we the right kind?

THE FEDERAL PURE FOOD AND DRUGS ACT Since the passage of the Federal Pure Food and Drugs Act, we have noted strenuous efforts to establish food laboratories presided over by able food specialists, but what about drugs? We will admit that pure food is very important, and it almost goes without saying that in order to make pure food possible, well-equipped food laboratories are essential.

The Department of Agriculture has within a very short time made wonderful strides towards systematizing scientific food inspection, and safe-guarding against food adulteration. However, drugs do not even receive mention in this scheme. In fact, we hear the expression "Pure Food Law" with the very general omission of the conjunc-

tion "and" and the homely word "drugs." The Department of Agriculture has eased its mind in a very simple manner by stating that as far as drugs are concerned the U. S. Pharmacopœia and National Formulary shall serve as standards of purity. That is all very well, but these most excellent storehouses of drug knowledge are not intended as works governing the examination of drugs as to purity. They can serve such a purpose in individual cases, but neither of these books gives any general outline of a systematic examination of drugs as to purity and quality.

If food laboratories are necessary to enforce the pure food laws, then drug laboratories are necessary to enforce the pure drugs law. We need an outline governing the examination of drugs in these laboratories. There are plenty of competent specialists to take charge of this work.

We see no valid reason why a move is not made in that direction. Who is to blame for the unfair onesided scientific supervision of the ruling?

DISPENSING BY PHYSICIANS Dispensing by physicians and prescribing by druggists are evils that have been the cause of considerable friction. While neither of these evils is likely to be done away with to a degree satisfactory to extremists on both sides, there is ground for the belief that they will gradually be lessened until the interests of both parties no longer suffer. If the efforts now being made to bring physicians and pharmacists into closer and more ethical relations result, as is hoped, in leading to a better understanding of each other's case, this result must follow to a greater or less extent.

Writing on this subject, Dr. W. T. Marrs, says in **The Pacific Medical**

Journal: "As a matter of economy it perhaps pays physicians to keep and dispense the greater part of their medicines. * * * The physician who does much of a general practice will find it more satisfactory to keep on hand a pretty good assortment of office and **bedside** remedies. * * * If one is near a drug store it is not necessary to keep antitoxin, vaccination virus, and such other useful agents that deteriorate with age."

Then follows a list, which, with the combinations (not specified) would probably number 150 ready-made preparations, mostly in tablet form.

When we consider that most physicians who have been engaged in the practice of medicine many years use less than fifty remedies all told, the list given is a very liberal one.

It is consoling to pharmacists to know that such doctors as this would still kindly allow them to keep anti-toxin and serums, and to be responsible for their safe keeping and age. To look after such details would be some trouble, so druggists who get nothing in the way of business from dispensing physicians may still be made a convenience of, where trouble and responsibility come in.

It hurts Pharmacists, however, may derive a further grain of comfort from the fact that the doctor who dispenses his own remedies seldom "does much of a general practice." It always hurts a physician to dispense his own prescriptions. Most people say to themselves, as they see him do this: "Umph! Small potatoes."

The **Western Druggist** is waging war against this evil. It contends, among other things:

"1. That no other civilized nation, save one, permits it.

2. That the Pure Drugs Law and

all other enactments to insure purity in drugs and medicines are nullified by it, as physicians can dispense what they please, without regard to quality or purity.

3. Physicians, as a rule, have little or no knowledge of the science and art of medical dispensing, and hence are unfit to serve the people in this capacity.

4. The work of men in all other professions is subject to review by patrons, clients or courts of appeal, but **the ignorance, errors, carelessness or criminality of the dispensing physician are buried with the patient**, with none to review, to certify or to accuse!

5. For reasons stated, **Prescribers Should Never be Permitted to Dispense**, save in emergency cases when, if death occurs, the **CORONER** and **NOT the PRESCRIBER** should certify the cause of death.

6. **The Druggist or Pharmacist**, being specifically licensed by the State to dispense medicines because of his proven qualifications, has a manifest **Exclusive Right to Dispense**, and prohibition of dispensing should therefore apply to all others and **With Tenfold Force Against Physicians.**"

BUSINESS TOPICS

Jacob Diner of New York, Chairman of the Commercial Section of the American Pharmaceutical Association, wants the co-operation of live pharmacists in the work of making that Section a prominent feature of the meeting next September. Papers, short or long, but practical, will be valued. Here is what he says:

Subjoined you will find a few questions which I desire to bring up for discussion at the meeting mentioned. Will you please sit right down and, after reading them all over, pick out as many of the questions as you find of particular interest to you, and write your answers down and send them to me at once. Don't think you have to write a

learned treatise or lengthy dissertation on the subject you find interesting. Just treat it as if you were talking to a friend or neighbor about it and judge it as you find it in actual business life.

Please let me have your answer before the end of the month. Thanking you in advance for your kindness, I am,

Fraternally yours,

JACOB DINER.

320 St. Nicholas Ave., New York, N. Y.

Questions

1. Does the postoffice station, sale of stamps, city directory, etc., benefit the store?
2. The commercial value of taking your clerk into your confidence.
3. Does the present scale of remuneration bring into our fold the necessary number and the right kind of help, and, if not, how to remedy it?
4. The value of window display and the kind of goods to display.
5. The trade in spices and the druggist's share thereof.
6. Are the druggist's "own" preparations of real benefit to him, and what kind of remedies should be selected?
7. The confidence of the public as a valuable asset, and how to get it?
8. The advantages of co-operation with the N. A. R. D.
9. The sale of "patent" medicines is acknowledged to be a somewhat necessary evil. How far should the druggist go in pushing or discouraging it?
10. The pharmacist as a citizen.

A Modified Pure Food Law

In due time, after the Federal Pure Food and Drugs Act has been carefully considered and reconsidered, it will no doubt be modified along the following lines: What are the most suitable food preservatives and what is the minimum amount of the most suitable preservatives required to preserve food substances which must be preserved in order to keep them wholesome until they are ready to be eaten?

California Pharmaceutical Association, Oakland, May 19th.

Pacific Pharmaceutical Association, Oakland, May 21st.

Queer Pharmacy Answers

Boards of pharmacy and other examiners sometimes receive peculiar answers to their questions. A few are appended. Some of these are due to imperfect knowledge of the English language, which is hard for foreigners to learn, but some are due to other causes:

Q. What are the medicinal properties of Aconite?

A. Aconite is a benumbifier.

Q. What is the official name of Hive Syrup?

A. The bees' Syrup.

Q. What compounds are formed when sulphur is boiled with lime?

A. Compounds of a dark color and shocking smell.

Q. How would you convert an iodate into an iodide?

A. By changing a to an i and t to a d.

Q. What would you do when a person has taken a poisonous dose of prussic acid? (oral question).

A. You can't do anything—they suck-um before you can give them anything.

1. What is magistral pharmacy and why so called?

A. So called because it takes a magistrate or experienced pharmacist.

2. Why should a graduate be emptied after each article is measured (give two reasons)?

A. Because you may get too much of the second or third ingredient. Then you cannot correct your mistake without emptying out the whole business, and you don't want to do that, so you just let her go, which is not good pharmacy.

How about the English?

Rats are said to increase at the rate of 800 a year from one pair. The young produce offspring when four months old. If none were killed, the offspring of a single pair would soon amount to a million.

Original Communications

THE BUSINESS SIDE OF PHARMACY

The fourth lecture in this series at the California College of Pharmacy was delivered by Mr. R. E. Leet. His topic was the "Buying, Pricing and Selling of Goods."

Beginning where he left off in his previous lecture, he called attention to the relations between the druggist and his landlord, advising the securing of a lease for a reasonable time, so that after building up a business he may not be compelled to submit to a serious loss through having to move to a new store. No business can stand a lapse of three months through alterations or removals, so get on good terms with your landlord. Again, get on good terms with the medical profession. Take a pride in letting them know that you have had a proper education. If perchance one of them step behind the counter to make a request or give directions, have everything always so scrupulously neat and clean that there will be nothing to be ashamed of or to apologize for. Let your business with them be purely commercial. Paying commissions to physicians is graft, and carries with it the contempt of every one. Keep clear of it. Incidentally you ultimately get more business. Let physicians understand that you solicit business from them purely on the ground that you dispense just what is ordered. Show them any unusually nice drugs or preparations that you have, and get the best the market affords. Show them any new preparations you may make, competing with copyrighted or trademarked proprietaries, any elegant or palatable way of preparing medicines not always agreeable. Some time since our firm made

up a N. F. preparation, made it very nice and attractive, and showed it to our physicians. We received twenty prescriptions in one day for that preparation. Doctors are getting tired of prescribing proprietaries. As a rule, they do not study the U. S. P. nor the N. F., but look to their favorite druggist to keep them posted. Keep track of the number of prescriptions you receive from them, and let them know about it. That pleases them, shows that you appreciate their business and are looking for it. Remember that the fact that physicians recommend their patients to patronize your store has an effect on the other departments of your business.

Again, keep on good terms with drummers. Nobody sizes you up more quickly than a drummer, because it is a part of his business to study human character. Be courteous to them. Don't waste their time. It is money to them, and ought to be to you. When you are notified that one is coming, be ready for him. Be posted, ready to give him an order or to say without needless delay that you have no order for him. Often you can save your own time and his by making an appointment beforehand.

When your stock of a certain article is low, and it is time to place an order for more, it is important to you to know how much you should buy. We have a card system by which we can tell at any time how much of an article we have on hand, and how much we have sold the last month, two months, six months, etc. This enables us to make contracts intelligently, sometimes for a year's supply, and by this means we get a better

price. In keeping these records, every purchase is entered on a card when it is made, the entries being in black ink when the articles have been bought in the usual way, many of these being of manufacturing or Eastern houses. When, however, purchases are made of local houses on emergency demands, these are entered in red ink. This calls the attention of the manager to the fact that he may not have ordered soon enough, or that the stockkeeper may have been negligent.

Date Billed	From	For	Quantity	Unit	Cost	Freight	Date Received
1/10/07	J & C		25	lb.	\$2.15	pd.	1/10/07
1/20/07	"		25	"	"	"	1/20/07
2/13	"		25	"	2.22	"	2/15/07
2/27	"		25	"	2.18	"	2/28/07
3/1	L & W		25	"	1.97	2c. lb	3/27/07
4/1	"		25	"	1.97	"	4/18/07
Part of 250 lb Contract at \$1.97							
For Year's Total, Quantity Cost, Quotations, Etc., See Other Side							
Potassium Iodide							
WE SELL							
25c oz—4oz 85c							
\$2.75 lb.							
10 lb lots at \$2.25							

In buying, note carefully the selling probabilities of the article. If you are about to give an order for something that everybody uses, and there is a steady demand for it all the time, and some inducement is offered to enlarge your order, you may do it. If you know what your sales are ordinarily, you can purchase a three, six, or even twelve months' supply, if you have the money to spare and the inducement offered warrants it. But if it is an article whose salableness has to be

demonstrated, beware! You may find that it does not take with the public, and you have tied up your money when you could have used it to better purpose in other things.

An account of stock should be taken at regular intervals for your own information. You need to know where you are, and you cannot know this unless you know the value of your stock. Even in a small business, you may have added to your stock \$500 or \$1,000 and not know it, or you may have run down your stock to a like extent, and not be aware of it. Having prepared a balance sheet, you know whether you are gaining or losing money. You can estimate the value of your business. Should an offer to buy come along, and you have any disposition to make a change, you are in a position to determine the advantages or disadvantages of such a trade. If your business is healthy but still not as profitable as you thought it was, a review of the situation may lead to some changes whereby expenses may be lessened, trade increased or net profits augmented in some way or other. In taking stock, you will find some goods that ought to have been sold. You turn them out, get them out of the way of live goods, and make an effort to convert them into money to be invested in something that will sell. When you have a store of your own, you will probably have one or two clerks. Remember those clerks' time costs you money. It is well to have a clerk whom customers are pleased to meet, but if he spends a good deal of his time talking to people and sells nothing, he is an expensive luxury.

Have a price for everything in the store. If one clerk gives one ounce of tincture of benzoin for ten cents and another gives two ounces to the same

customer for the same price, he thinks he has been imposed on, and concludes that there is no system in that store and that he is apt to be overcharged. So he is liable to trade elsewhere. So with prescriptions—have as near as you can fixed prices, charging all alike. It hurts you if you charge 50 cents one time and 75 cents another for the same prescription. Price governs the volume of business more than druggists believe. It is a mistake to suppose that you can get what you please to ask. Prices must be right in view of competition. Find out what your competitors are doing by buying articles from them. Do not ask 15 cents for a whisk broom that is being sold in a neighboring store for 10 cents. Just as you check up your doctor on his prescriptions and your clerk on the trade he handles, check up your competitors. Know everything about your business.

Be careful about entering into agreements with other druggists. The Cartwright anti-trust law prohibits this, and it is not always good business policy. Be on friendly terms with other druggists, but the public do not like combinations.

In buying goods, have in mind how you are going to sell them and how to display them. Some persons make a specialty of window displays. Windows should be dressed so as to attract attention, not merely to amuse, but to sell goods. Notice how other windows are dressed. Sometimes a prescription display may be had, showing apparatus used, balance, prescription book, etc. There should always be some card or cards calling attention to the matter displayed. The wording should be effective, calculated to encourage trade in the items shown or in the department of business represented. Don't be afraid of price cards,

these let the public understand that you take them into your confidence, and all this helps trade.

The fifth lecture was delivered by Mr. Val Schmidt on February 11th, on "The Prescription Department." In the course of his remarks, the speaker said: "A workman is known by his tools. To do the best work you need good tools, and the good workman keeps his tools in good order."

The first thing to be considered is the prescription part of the store. Shelves should be arranged so as to have everything ordinarily used close at hand. About 2,000 bottles will be needed for chemicals, etc., 100 wide-mouthed and 100 tincture bottles. The shelves for these should be two inches wide. Labels need not be expensive. You can write (or print) them yourself, using India ink, which, when dry, should be coated with mucilage of acacia, and afterwards when perfectly dry varnished with dammar. If uniform in size, lettered in the same style, and put on evenly and of the same height, they look very nice. Then, if necessary, they can be changed as remedies go out of use and new ones take their place.

The counter-top should be of white marble, because every particle of dirt is quickly seen and easily removed. A few discs of heavy rubber, one-fourth of an inch thick and 6 or 8 inches in diameter, serve to place under mortars when pounding has to be resorted to and for other purposes. The width of the marble should be about 22 inches, the length according to the room you have. At each end should be a desk, one for writing directions, etc., and the other (with a flat top) for the telephone, files, etc. The slanting desk should have on it the prescription file and a numbering machine, and in it a drawer for prescription labels of all

sizes. At each end should be a pane of glass through which to look into the store, so as to see what is doing there.

The height of the counter should be about 38 inches. Drawers underneath, not too large, to hold corks, spatulas, pill and powder boxes, glass rods, filter paper, droppers, etc. Three of these should be devoted to glass-stoppered vials for pills, powders and liquids. There should be others for tin boxes, ointment jars (one drawer for each size), always clean and ready for use. Cotton waste or absorbent cotton should always be on hand, and also bottle caps. All liquids should have their bottles capped. It gives an impression of painstaking care, cleanliness, etc. A good-sized bin should be near the center of the counter. This is a movable drawer, zinc lined, so as to be easily cleansed. This is a receptacle for oily cotton, paper and other refuse. The scavenger comes at certain periods and empties it, and after wiping or otherwise cleansing it, returns it to its place. There should be a shelf near at hand for pill machines, conical machines, clean mortars, etc. Every time a pill tile is used for an ointment, the clerk should carefully wipe it perfectly clean with cotton waste, batting or absorbent cotton, and replace it in the niche where it stands on edge ready for the next time. In like manner, spatulas should be cleansed of grease and replaced. After using a mortar or graduate for oil or grease, a little sawdust should be thrown into it. That tells the boy or porter he must not try to wash that clean with water until after rubbing it with sawdust to remove most of the great. Have plenty of mortars, one at least of each of several sizes for different uses, one with a long, straight pestle for pills.

Have a small poison closet close by, in which potent remedies are kept. Have three pairs of scales, one for fine work to weigh 1/20 grain, another ordinary prescription balance, and a third to carry half an ounce or more.

The prescription department is the most important in the store, because through it you gain a reputation for accuracy, care and promptness. The relation between the pharmacist and the physicians should be cordial. Give them what they have need of in the store, but let your presents to them end there. If a physician makes a mistake by ordering an overdose, or an incompatibility, do not let the patient or messenger know, but delay delivery, and in the meantime telephone the doctor and get the error corrected. He will usually thank you. Whether he does or not, you have done right. Use the best materials you can buy or make. Do it with everything. Your reputation depends upon this.

On receiving a prescription, glance through it hastily, and if any difficulty at once looms up before you, do not let the patient see it. Use tact. Don't look puzzled. If you wish to consult with some one in the store on some point, do it where the patient will not observe you. Before dispensing it, read it twice; then examine the scale pan to be sure it is perfectly clean, see that the scales balance, and then proceed. After using each bottle, replace it, and take a last look at it to be sure it is the right one. Never leave the bottles on the counter, nor weights in the scale pan, or dirt anywhere. Wipe the scales before you leave them. You cannot be too clean. Have enough spatulas, but not too many, nor too large. Three, four and five inches are about all you need.

Have some solutions ready-made.

As far as possible have them all of uniform strength. Strong alkaloids, 1 in 10. Triturations are also convenient, 1 in 10. Prescription bottles should always be ready washed and **dry**, so that oil can be put into them if necessary without clouding. Never substitute. If an article is ordered that you have not in stock, get it if possible. If it cannot be obtained, and the doctor cannot be communicated with, return the prescription. In taking a prescription from a customer, if other goods are ordered, take the name and address of the customer, write the orders on a tag and pin it to the prescription. Also mark whether to be called for or to be delivered, to collect or paid, the price, etc. When goods are ordered sent out that have not been paid for, write the item on a charge tag and put on a file. If the messenger returns with the money, take the tag off the charge file and put on the paid file. The charge file is given to the bookkeeper, who enters it in the day-book.

As to filing prescriptions—there are many different systems, but the lecturer prefers the old method of pasting them neatly in large books made for that purpose. When full these books have the numbers and dates marked in large figures on the back. Have a numbering stamp. It prevents duplication of numbers and soon pays for itself. Some have also a dating machine, which is good, and others have a stamp that records the hour and minute the prescription was received. This tends to develop promptness in delivering, which is of great importance.

In writing labels take pains. Write a clear, legible hand. If serious grammatical errors appear on the prescription, they may be corrected. He once

had one that read, "A teaspoonful to take when you can't sleep at night in water." Be careful to put on stickers, "Shake before using," "For external use," etc., where such admonitions are necessary. When renewals of prescriptions are to be put up, make a copy on a slip of paper. Do not attempt to dispense from the large book or file. There are many chances of error by such a course. Read the copy over again, comparing it with the original. Do everything to prevent mistakes. Acquire good habits in your prescription work.

As to book accounts: if you are doing business in a neighborhood where well-to-do families reside, it pays to encourage book accounts. People buy more freely and do not divide their trade. But if you are doing largely with transient customers, stick to a cash basis.

In wrapping up medicines, be neat. Have paper cut for every sized bottle, from one ounce to thirty-two ounces. You cannot make a neat package if your paper is too large.

As to delivery of medicines: let the errand boy have a satchel. Do not let him handle the package much. A dirty parcel delivered at a house excites disgust, and will undo all your efforts to create a good impression. As to the prices charged for prescriptions, remember that the cost of the materials is often less than the cost of time taken to compound them. The price should compensate for time, labor and skill; not at an exorbitant rate, but at a moderate estimate of the profit fairly earned. Prices for similar prescriptions should be as uniform as possible.

Those desiring National Formularies can secure them by applying at this office.

THE U. S. PHARMACOPŒIA AND POWDERED VEGETABLE DRUGS

By Albert Schneider

A paper by Prof. Henry Kraemer in the February issue of the **American Journal of Pharmacy**, entitled "The Pharmacopœia and the Microscopic Examination of Vegetable Drugs," vividly recalls to mind a resolution which was presented by the writer before the United States Pharmacopœial Convention at Hotel Raleigh, Washington, D. C., at 12 m. on May 3, 1900. This resolution read as follows:

That all of the important vegetable drugs in the powdered state should receive recognition in the United States Pharmacopœia, and that said powders should be described in such a manner as to specify their fineness and freedom from impurities. A general paragraph on the simple vegetable powders should also be included in the Pharmacopœia, requiring that all parts of the drug shall be reduced to the same degree of fineness, or, if practicable, the more fibrous inert portions be removed in the process of powdering and sifting.

The resolution was fully elucidated in a paper entitled "Suggestions on the Introduction of Powdered Vegetable Drugs in the United States Pharmacopœia," which appeared in the Proceedings of the American Pharmaceutical Association for 1900 (pp. 141-145). The resolution was promptly voted down at the forenoon session referred to. In the afternoon session of the same day a similar measure was proposed by Dr. H. H. Rusby, which was referred to the Revision Committee.

The chief reason given for voting against the resolution was that only a few pharmacists actively engaged in practice were educationally qualified to recognize the histologic characteristics of vegetable drugs. This is certainly a weak and unworthy argument. The Pharmacopœia should be adapted to the better class of pharmacists, those who have the superior educational

training, and not to pharmacists derived from the ranks of the educationally inferior and unqualified. The fact is that the pharmacists holding diplomas from the leading colleges of pharmacy in the United States, are qualified to examine vegetable drugs microscopically and can detect adulterations and admixtures of vegetable drugs, spices and related substances, through the aid of the compound microscope. It is certainly unfair that the more efficient carrying out of the demands of the Pure Drugs Acts and Laws by our competent pharmacists is hindered through the shortsightedness of some members of the General Committee of Revision. It is true the General Committee did not ignore the subject entirely, but such admissions pertaining to vegetable powders as were included in the 1900 U. S. P. are of very little value. Dr. H. Kraemer, who is a member of the General Committee and Chairman of the Sub-committee on Botany and Pharmacognosy, persistently urged the introduction into the U. S. P. of brief and concise descriptions of powdered vegetable drugs, but his labors came practically to naught.

It is much to be regretted that the Revision Committee stood in the way of making our Pharmacopœia equal in progressive scientific standing with those of Holland and Germany. It would thus now form a handbook meeting more efficiently the demands of the Pure Food and Drugs Act. It is to be hoped that the Revision Committee will incorporate the desirable changes referred to in the next issue of the Pharmacopœia, but we are not aware of any active move in that direction, up to date. The year 1910 is not far off and in order that the changes indicated may be properly formulated, the work should be under active headway now. In spite of the work al-

ready done by American specialists in the microscopical examination of vegetable drugs and related products, there is considerable difference of opinion as regards the odor and color of vegetable powders. The terminology applying to histology, odor, taste and color also require further careful revising. We hope that the committee will at once wake up to the importance of this subject and co-operate with and approve of the efforts of the few specialists who have laid the groundwork of American drug histology.

The writer desires to take this opportunity to express his high appreciation of the efforts of such men as the late Dr. Rice, of Dr. H. H. Rusby and of Oscar Oldberg and a few others, who have heartily approved of the efforts above outlined, though they are not specialists in that line of investigation.

EXTERMINATION OF RATS AND PLAGUE

By Albert Schneider

By this time every living person is fully acquainted with the existence of bubonic plague on the Pacific Coast.

Incidentally we wish to call attention to the present irrational plague scare, no doubt largely engendered through the strenuous though well-intentioned efforts of the Board of Health and daily papers. The plague is just now practically non-existent among human beings. If the rats are exterminated **now**, the plague will not reappear when the warm weather sets in in April and May. The talk of quarantining San Francisco, Berkeley, Oakland and other cities is absurd in the extreme. These threats emanate in part from health officers who evidently wish to take this opportunity to play to the galleries. It is bad taste. The plague in San Francisco and vi-

cinity is as nothing as compared with the grippe, tuberculosis or typhoid in Chicago or New York City, or the measles in Boston or the lazy fever in New Orleans, and yet no one thinks of quarantining these cities. The talk of refusing shipments of goods from San Francisco is tiresome, and really not worthy of comment.

We are in favor of the extermination of rats and the plague, and every effort should be bent in that direction, but there is no cause for a wild scare. It may be mentioned as a bit of curious history that there are not a few people in San Francisco who declare that the disease designated as plague is **not** the plague. It may be possible that some of the diseases diagnosed as the plague were in reality not this dread disease. This may, however, be offset by the possibility of having overlooked some true cases, though this is not so likely, as every physician is on the lookout for a possible case.

The plague disease conditions may be summarized as follows:

Human beings, rats, ground squirrels, gophers and perhaps mice, are susceptible to the disease commonly known as plague.

Fleas and other animals, as flies (mosquitoes, house flies, etc.), lice, bed bugs and other vermin are not susceptible to the disease, but they may act, and do act, as carriers of the disease. Thus a flea which has been prospecting upon a plague-infected rat, may next leap upon a man in a crowded street car or other public place, and proceed to inoculate him with the disease.

It is a settled fact that rats are the principal source of the disease and fleas (in San Francisco) are the principal carriers of it.

We do not associate intimately with rats, and are rarely bitten by them, so that we as human being rarely get the

disease directly from rats. We get it from the various disease carriers mentioned which come in contact with diseased rats.

It is also perfectly clear that a cat or a dog might become a carrier of the disease.

If we can get rid of either the chief primary cause (rats) or the chief carriers (fleas, etc.), the disease will disappear from the human race.

It is impracticable as well as impossible to exterminate the carriers. It therefore remains to exterminate the rats, which is possible. This can be done as follows:

Do not wait for an official rat destroyer, doctor or health officer to tell you when and how to kill rats or to kill them for you. Become active yourself and proceed to exterminate pests as though you were the board of health. Rats, mice and ground squirrels can be killed, or caused to disappear, as follows:

1. Set traps for them. Don't attempt to catch rats in mice traps. They will not serve the purpose. These traps must be properly baited. The odor of fried meat attracts mice and rats. Bait with small pieces of fried bacon, steak, or other meat. Tie bait on so that the sly old rat cannot gently remove it without springing the trap. There are a thousand and one different kinds of traps. Use those you are best familiar with. Place these traps in favorite haunts and runs.

2. Mix rat food with arsenic or strychnine and place it in the rat burrows and runs. The various powder, pastes and biscuit rat exterminators on the market are mostly arsenical or contain strychnine, and may be used. These highly poisonous rat exterminators, though effective, **are dangerous to human life. Keep them away from children.** Many cases of poisoning

have been traced to the careless distribution of rat poisons.

3. Azoa, a microbic rat destroyer, marketed by Parke-Davis & Co., is effective when used fresh. It is harmless to human beings. Mix with meal as directed on each package. Old azoa is worse than useless; don't try to use it. Azoa acts by inoculating the rat or mouse with a fatal disease. This disease is not communicable to other animals.

The microbe of the azoa should be in the active virulent form, as in fresh cultures, and the material should be grown as wanted for use. There should be bacteriological stations for preparing these fresh cultures. A laboratory could easily be fitted out. Of course it would be necessary to obtain permission to thus prepare and use the microbic rat exterminator, in case the remedy is patented.

4. Cats, dogs, snakes, ferrets, weasels and other animals kill rats. Cats and dogs are well-known rat enemies. Some wise one has suggested importing Mexican snakes into our homes for the purpose of exterminating rats. We don't like the idea.

It is no doubt clear that a cat or dog killing a plague infected rat could transfer the disease to human beings. The Board of Health has thus far not touched especially upon this point. To what extent may dogs and cats be a source of danger in plague dissemination?

5. Starve the rats. Keep food where rats cannot get at it. Butchers, bakers, restaurant keepers and grocers especially should take notice. Of what avail is it for private families to keep their premises free from rat food when the above do not do so? Health officers should see that the above keep food refuse out of the reach of rats and mice.

6. Make premises and buildings and

their surroundings untenable to rats. Clear away rubbish of all kinds. Destroy it by burning or dispose of it by deep burying, etc. Do not leave boxes, barrels, cases, etc., on floor of basements, cellars, etc. Clear them away and burn them. Especially keep clear of old rags, clothing, paper, etc.

7. Livery stable men and other stable men should see to it that hay, straw and manure do not harbor rats. This includes dairymen.

8. City authorities should see to it that sewer pipes are free from rats and are made rat-proof. All of the other agents mentioned are of no avail if the sewer pipes harbor thousands of rats. The old, unusable sewer pipes of San Francisco need rat-proof closing up.

9. Health authorities need not worry so much about rats in and about private dwellings. Let them focus their attention upon the numerous ruins, wharves, old ships, the packing houses, the wholesale houses, livery stables, factories, public buildings, sewage system and other places which may serve as breeding places for rats in large numbers. If the rats are destroyed in these places they will also disappear from private dwellings, large and small.

11. All dead rats should be cremated (completely incinerated) if possible. If cremation is not possible, bury them deeply, if possible with quick lime or some disinfectant.

The street cars of San Francisco are extremely filthy. They need cleaning badly. They are the chief flea holders and carriers. It is impossible to ride in a street car without acquiring fleas. The cars should be washed and scrubbed as often as may be necessary to keep them clean; they should be swept at the end of every trip, if necessary. The flea is a filth insect and breeds in and thrives in dry dust in cracks and crevices of cars, floors,

walls, ceilings, in old mattresses, etc. They do not remain in and develop in new, clean places.

Dogs hold and carry fleas in numbers. No dog should be permitted in a dwelling, public or private, and they should not be permitted in any public conveyance. Those who must have pet dogs should keep them to themselves, under lock and key.

It is possible to exterminate rats and other pests if properly managed. With the disappearance of rats the plague will also disappear.

While it is not wise to predict, yet we believe that the present efforts will effectually prevent the recurrence of the disease in the spring and summer of 1908.

In conjunction with rat extermination we wish to refer to the subject of fumigation. All basements, all sparingly used, musty rooms and other enclosed areas of unwholesome atmospheric conditions should be fumigated by burning sulphur, not by means of formalin. Sulphur destroys fleas, lice, cockroaches, mites and other insects, and larger animals, as rats and mice, which the formalin fumes do not do. Use a liberal supply of sulphur. It must, of course, be borne in mind that sulphur fumes bleach colored goods. The room, while fumigated, should be tightly closed. Many ships are habitually fumigated with sulphur, not on account of the plague, but in order to kill and drive out rats and mice which might injure the cargo, especially of silken goods.

An Unsympathetic Description.

"What has your boy been studying?" asked the neighbor.

"Well, fur one thing," answered Farmer Cornloss, "he's been studying botany."

"What is botany?"

"Botany is what teaches a man the names of a whole lot of things he hasn't sense enough to raise."

PHARMACY IN MEXICO

By Joseph Fabra

Believing that the experience which I have gathered during my recent stay in Mexico might be of some use to the ambitious young pharmacist, who, either tempted by advertisement or merely lured by the picturesqueness of an old interesting country, goes down to Mexico with high expectations, I will in the following account briefly put down my observations about Mexican pharmacies and Mexican business methods.

In spite of the great number of foreigners that live in Mexico or spend temporarily some time there as pleasure or health seekers, the number of pharmacists who are able to employ foreign help is very limited. In fact it is only in the large commercial and mining centers that we find American, German or French pharmacies which avail themselves of the services of one or more non-Mexican clerks.

For instance, in the capital of the Republic, the City of Mexico, where naturally all commerce of the country centers, are five first-class pharmacies found, which rely mostly on foreign help. There is the American Pharmacy, La Botica Americana, owned by two Californians, the Sanborn Brothers of Los Angeles. They are very progressive, active business men, and have in six years built up an immense trade. The New Botica, lately reopened, is in beautiful Mission style, everything practically and tastefully arranged.

The Botica of Iturbide has been owned for many years by Don Emilio Kentzler, a graduate pharmacist of the University of Marburg, Germany, and Titulado of the Escuela de Medicina y Farmacia, Mexico, who has always had a high reputation as a pharmacist and is mainly devoted to first-class prescription trade. From 150 to 200 pre-

scriptions a day are nothing unusual there.

The Botica of Kaska & Lorenz, the former man well known all over Mexico, who died last year. He came as an apothecary with the late Emperor Maximilian, and after the sad end of said ruler, remained in Mexico and made that country his home.

La Botica Hospital Real and the International Pharmacy both owned by Mr. Schmitz, a German pharmacist.

All these pharmacies have a more or less American aspect and depend to a large extent on cosmopolitan trade. Therefore they employ as salesmen mainly American, German or French clerks, and to succeed here in getting a well-paid position, it is necessary to speak English, German, Spanish, and, if possible, French. The salary ranges, accordingly, from \$100 to \$300 a month, Mexican money, and though the actual value of a Mexican dollar is only about fifty cents U. S. money, it must be borne in mind that the buying power of the Mexican is practically about the same as that of the American dollar.

In the next important city, Guadalajara (State of Jalisco), there are one American, one French and one German pharmacy, all three being well conducted and doing a thriving business. Of the other towns I merely mention Torreon, a very progressive and rapidly growing town, with two American pharmacies, and Monterey, the most important town in the northern part of the Republic, with three pharmacies, owned by Germans and Americans.

Aside from these foreign pharmacies, there are, of course, a great number of Mexican boticas. The efficiency of these may not be inferior to others, but their appearance strikes a visitor of the country as being decidedly strange

and antiquated. They are mostly odd-looking places, some in houses 200 or 300 years old, with venerable looking pictures and old-fashioned bottles from which the dust of ages, I am sorry to say, is not always removed. Behind the counter is the "Profesor Responsable," as a rule, an old and sickly looking man, whose once-upon-a-time white-looking long coat (which he always wears to protect his everyday clothes) is quite confidence inspiring, and one or two boys lounging around with phlegmatic features, in constant fear of having their siesta disturbed by some customer. The prospective purchaser will, for instance, ask for an article that is not used every day in a Mexican pharmacy. The "profesor" will assume a profoundly wise look, examine a few shelves, disappear in one of the rear rooms, and return with the laconic remark, "No hay" (literally, "We haven't got it"). This "no hay" you hear every day in Mexico if you have to buy in Mexican stores. Often the article really is not there, because the man who sold the last did not put it in the "want book," but it is a known fact (and this is especially true in large places, where it is impossible for the management to give personal attention to everything) that the Mexican clerk is too lazy to hunt up an article asked for, or even to ask somebody else employed. He prefers simply to say "no hay," and out walks the customer.

If the Mexican people would have a little more "get-up" in them, like their brethren in the northern sister Republic, things would be quite different and the successful business houses would not be exclusively in the hands of foreigners. This is not saying that there are no Mexicans who are not industrious, pushing business men, but, as a general rule, they are, like all the

natives of tropical and semi-tropical countries, prone to laziness.

Each Mexican botica bears a more or less impressive name, which sometimes refers to some political hero (Juarez, Iturbide, Porfirio Diaz, etc.) or more frequently to the religion of the land, so that names like "Botica del Dulce Nombre de Jesus" (Pharmacy of the Sweet Name of Jesus), "Bótica de San Augustin," or even "Leo XIII" are not unfrequently met with. The same religious tendency results in the popular naming of some medicines after some saints, so that it is often hard for a newcomer to know what is meant by, for instance, "Acetite de San Cypriano," "San Jose," or others.

The "Farmacopea Mexicana," Edition 1904, is a voluminous, entirely up-to-date book. In general respects it is very similar to the old Spanish Pharmacopœia. From that of the United States it differs principally through the different arrangement of the whole matter and the fact that it gives, like all the other European Pharmacopœias, fixed maximum doses for an adult, and not the average approximate doses. The main part is divided into three different groups, viz:

1. Productos naturales, vegetales, minerales y animales.
2. Productos químicos.
3. Preparaciones farmaceuticos.

The articles of each group, of course, are alphabetically arranged.

In the new supplement of 1905 we find the pharmacy laws and the list of the substances and apparatus which should be in each pharmacy.

To own a pharmacy in Mexico it is not necessary to be a graduate or licentiate of that country. The government only requires that a graduate or licentiate be employed there to be responsible to the government for the proper conduct of the business. This

man has the title of a "profesor responsable," and his name is to be written plainly on the outside of the store, as also the hours he is present, so that everybody can easily see it. He has not necessarily to be in the store the whole day, but the government requires at least four hours daily. If some grave mistake should happen, the "profesor responsable" is fined by the government. Many small stores which cannot afford to engage a professor for the whole day, have one there for four hours only, and pay, as a rule, for this work fifty pesos per month.

Many doctors are owners of small boticas and have at the same time a "consultorio," a room in or next to the store, where they and others come during certain hours daily to treat the poor people, who then generally pay only for the medicine. The reason for this custom is that there are a great many poor people in Mexico who earn only from twenty-five to fifty centavos per day and so, naturally, cannot afford to pay the doctor and druggist.

With regard to the medicines that are most frequently used in Mexico, I will say the following: Universal favorite among the people are the "purgas" which are taken in some form or other. A "limonada purgante" is very often called for, and contains generally for an adult:

Calcined Magnesia 10 gm.
Syrup of Lemon and water q. s.

or:

Citrate of Magnesia, effervescent
40 to 50 gm.
Syrup of Lemon and water q. s.

The following are often used: Seidlitz powders, epsom and Glauber salts, and, last but not least, the good, old castor oil (aceite de ricino), mainly the one imported from Italy (brand, Carlo Erba) and enticingly put up in bottles of 25 or 50 grammes.

The most of the chemicals and drugs are imported from Germany, France, Italy, and the United States. Absorbent cotton, bandages, and rubber goods mainly from this country. As a rule, the Mexican people favor the foreign patent medicines. There are, of course, a great number of American patent medicines, but not far behind in this respect are Germany and Spain, and especially France. They are prescribed by some doctors, but as a rule good, old-fashioned prescriptions are written, in which, without exception, the metric system is used. A peculiar custom is the general use of the French "granules dosimétriques" (Chanteau), which contain either $\frac{1}{4}$, $\frac{1}{2}$ or 1 milligramme of the particular chemical. Furthermore, ampules containing sterilized solutions for hypodermic injections of French, Italian or Mexican make.

A serious drawback to the successful conduct of a botica is the well-known Mexican tendency to try to beat down the price asked. This holds good for purchases in general as well as for prescriptions. Out of a hundred customers at least 90 will, if they hand you over a prescription, ask "cuanto vale" (how much); and after your answer they will surely say "Esto es muy caro" (That is very dear). Now, you have either to come down or you run the risk to hear the stereotyped phrase, "Voy avisar" (I am going to tell it the party), and out they walk and try eight or ten more drug stores. If they return, you can be sure that they did not obtain a cheaper price in any other botica. As a fact, Mexican druggists put up prescriptions from 12 centavos upward. Very often I have seen prices as 12, 18 or 25 centavos marked on the prescription, where we would have charged in this country at least double the amount. But the most of the sub-

urban stores have very small expenses for rent and capital invested; then the Mexican is satisfied with a very small profit, because life costs him only a few centavos daily. If he has enough for his "frijoles" and "tortillas," he is content, but often the prices mentioned really were so low, that either the man did not know the cost or he must have substituted a cheaper brand, or even an entirely different thing for the ingredient prescribed.

The better stores, as a rule, do not sell for less than a "medio" (6 centavos), but the smaller places often have to sell for a "cuartillo" (3 centavos) and even for 2 and 1 centavo. I have seen a druggist sell for 1 centavo zinc salve to a woman. He certainly could not afford to give this in a box, and simply put the salve on a piece of paper and laid it open in the hand of the customer.

The main diseases in Mexico are stomach and intestine troubles, and so the greater part of the prescriptions are intended for these diseases. Furthermore there is much typhoid fever, pneumonia and smallpox, all these being more or less fatal to foreigners. There is also considerable leprosy. As the government does not isolate the lepers, one can see these poor, miserable creatures daily begging in the streets.

The climate is a very equable and delightful one. In summer and winter, cloudless skies and eternal sunshine. Of course, near the coast, the tierra caliente, it is rather warm all the year round, but the greater part of Mexico is elevated tableland, where the temperature averages about 70° in summer and winter. The rainy season generally commences in May and lasts until October, and this is the most pleasant time of the year, because the

showers mostly come in the afternoon and evening, and so free the country of one of the disagreeable features, the Mexican dust.

To speak about the education which the Mexican Government requires for a graduate of pharmacy, "profesor en farmacia," I will quote a translation of the two Articles of the Law on this matter in the State of Jalisco:

Article 140. The plan of study for the "Profesores en Farmacia" shall cover a period of three years, and its distribution shall be as follows:

First Year.

Inorganic Chemistry (embracing chemical manipulations, general chemistry and analysis with its application to pharmacy, to toxicology and other industries), three hours weekly.

Natural History of Medicine (embracing botany, zoology and mineralogy), three hours weekly.

Microbiology (theoretical and experimental), three hours weekly.

Second Year.

First Course of Organic Chemistry (embracing half of the material of this branch), three hours weekly.

General Chemical Analysis, three hours weekly.

First Course of Natural History of the simple drugs used in Mexico (embracing half the material of this branch), three hours weekly.

First Course in Pharmacy (embracing posology, pharmaceutic economy, deontology, pharmaceutic manipulations and practice in employing the instruments and apparatus in physics and chemistry used in pharmacy), three hours weekly, two of which practical.

Third Year.

Second Course of Organic Chemistry (complementing the study of the first course), three hours weekly.

Second Course of Natural History of the simple drugs used in Mexico (complementing the study of the first course), three hours weekly.

Legal Chemistry, three hours weekly.

Second Course of Pharmacy (complementing the study of the first course) and study of the pharmaceutic laws, two hours weekly.

Materia Medica, three hours weekly.

Article 141. The students of Pharmacy have to practice during the three years of their studies at least four hours daily in a pharmacy to the satisfaction of the professor of the college.

All these studies are taken in the "Escuela de Medicina y Farmacia" in Guadalajara, the capital of the State of Jalisco. Before entering, a young man must have a five years' course in the "Liceo de Barones," a school which is about equal to the American high school, or he has to have at least an education which is equal to this course.

As stated above, a pharmaceutical college education of three years is necessary in Mexico, which is one year more than is required in California. On the other hand, the California State Board of Pharmacy requires a period of five years' practical experience from a pharmacist before admitting him to the examination as a licentiate, which is two years' more practical experience than is required in Mexico.

It is a rare thing that in a Mexican botica more than one "profesor responsable" is employed, because these are high-priced men, and the Government requires only one who is responsible and so the others are generally assistants or merely salesmen. As a rule, all these are lazy and unreliable, have a great tendency to leave work for "mañana," and have to be under constant supervision, because a great percentage is addicted to the morphine and cocaine habit as well as to the use

of liquor. Even during working hours they like to prepare their "copas" (drinks), which contain as a base always plenty of alcohol. When off duty they indulge in "mescal," a strong liquor made, of the roasted roots and leaves of the maguey plant, by fermentation and followed by distillation.

The Mexican Government is quite liberal in granting licenses to the professional foreigners. A "profesor en farmacia" registered in one state of the Republic may go to any other part of the country, and his diploma will be acknowledged by the authorities and a license given to him to practice his profession.

The diplomas of German, English and French universities are as a rule good in Mexico to get registered on; the same is true of American diplomas of colleges which have the same standard as the Mexican. All foreigners, of course, have to prove through their consuls that they are the rightful owners of the diploma in question. The final decision whether or not a license is to be granted to a foreigner is given by the "Consejo de Salud Ciudad" (City Board of Health), and the fee for registration is, in the State of Jalisco, thirty pesos.

Taking everything in consideration, I think that a young pharmacist who is not only possessed of a desire to widen his mental horizon through the knowledge of new things, language and people, but who also has good health and a liberal supply of energy, will find a year's stay in Mexico an interesting and profitable experience.

Those desiring National Formularies can secure them by applying at this office.

AS TO A NATIONAL BOARD OF EXAMINERS

By Edwin E. Hutshing

State Boards of Examiners, throughout the United States, have been, almost since their existence, the butt of much criticism, and in some cases this criticism has been well founded. The principal one of these is what I wish to base the theme of this paper on, viz.:

The re-examination of Doctors of Medicine and Dentistry and Pharmacists, or any other professions coming under the jurisdiction of their respective State Boards.

At present it is necessary that a practicing doctor, dentist or pharmacist living in one State and being desirous to practice his profession in another State, that State to which he has removed (with but very few exceptions) demands under heavy fine his passing their State examination in order to work in his profession. Does this State to which he has removed think that, because this man has crossed a State line (an unnatural thing) he has lost all his former knowledge (possibly figured out to be "State line gravitation")? They know right well that a man, though he may be an excellent practical practitioner, would in most cases be unable to pass their theoretical examination without much ponderous review and study, for who retains all these little points (unimportant in practical life) which are asked answers for in our State Board Examinations?

What pharmacist, for instance, who after being away from his alma mater and his school books, say for five years or even less, would be able to answer to the question: "Give the pharmacopœial limit of ash after incineration, and name the constituents of Gambir?" or "Give the full chemical reaction taking place in the manufacture of

Tartaric Acid"? Now, both the above examples are typical questions of many State boards; they are unnecessary for the practical work of a present-day pharmacist, who may without doubt work behind his prescription counter all his life and never be called on to answer these questions. Man's anatomy and, but for few exceptions, his ailments, are the same in one section of the United States as in another, regardless of State lines; so this would be no excuse for demanding re-examination for a resident of, say Vermont, moving to Oregon.

There is but one possible need for these re-examinations, and that is the different standards of scholarship in the different colleges, but even this should not be so, as in the case of the medical colleges, who are controlled by the American Medical Association, but all this trouble and criticism could be overcome to a great degree by doing away entirely with our State boards, and in their place put a National Board of Examiners.

This National Board of Examiners for the different professions to be appointed anew, say, by each president; these men to compile all examination questions. These men to appoint deputies in each State, who will conduct the examinations on receipt of questions, said questions to be received sealed and opened only at commencement of each subject. At completion of examinations, papers to be sent to Washington for correction. In fact, the National Board examinations can be conducted as the present civil service examinations are conducted.

But now, it will be asked, what advantages will this National Board have over our present four or five dozen State Boards at present in existence?

First—And one that is a big factor, it will make it necessary that all col-

leges come up to the same standard in their courses, if they expect their graduates to pass the same examinations. This, of course, will make most of the laws of such bodies as at present control the standard of medical and dental colleges unnecessary.

Second—It will take the numerous State Boards "out of politics," and in the event that even this National Board is "in politics," it will be only one against about 150 (dental, medical and pharmacy) heretofore.

Third—Instead of supporting 150 State Boards, as at present, these professions will have to support but one.

Fourth—And one of the main benefits to be derived from a National Board, will be the making possible, by such an equalized standard, for a successfully examined candidate to practice his profession in any land over which the Stars and Stripes wave.

PILLS AND CAPSULES: THE ART OF DISPENSING THEM

By J. Leon Lascoff

It is known to every pharmacist that for the last few years physicians have been prescribing ready-made pills, and, more recently, capsules as well. The reason for this is not far to seek.

Pharmacists dispense pills without due regard to the kind and quality of excipient employed, and to the physical properties of the active ingredients prescribed. For instance, one pharmacist will dispense a pill of strychnine 1/60 grain, or atropine 1/100 grain, the size of a pin head, while another will turn out a pill from the same prescription as large as a pea. It may be stated that in a general way pharmacists can, with profit to themselves and the profession in general, adopt sizes of pills approximately the average of those placed on the market by manufacturing drug houses, turning them out just as perfect and accurate.

I do not blame a physician if he prescribes a ready-made pill, after he sees the different sizes and shapes of those turned out by some of our pharmacists.

There are today a good many manufacturing houses, and each one makes many different kinds of pills, and of different strengths. If one physician should specify pills of a certain manufacturer, and the others of another manufacturer, how many different kinds of pills we would have to carry in stock! According to the Pure Food and Drugs Law, we have no right to misbrand. Misbranding means substitution, and substitution is a misdemeanor. According to this, we would have to provide an extra store room for pills only.

Tablets ready-made take the place of powders, like phenacetine and salol tablets, sod. salicyl. tablets, calomel tablets, aspirine, salol tablets, etc.

The public, reading the prescription from the paper in hand, asks for ten cents' worth of the article. This could hardly be done if the prescription were written out with the different ingredients or with the chemical name for the pharmacist to dispense.

Our friends the pharmacists (members of various Pharmaceutical Associations) did a wise thing in advertising among the physicians the U. S. P. and N. F. preparations, but they overlooked the ready-made pills which are on the market, and which take the place of some liquids.

I would therefore suggest that the following points should be observed in dispensing pills:

First—The mass should be as hard and as small as is consistent with proper manipulation.

Second—It should be divided with exactness, to insure an **equal size of the pills**. This is important, in the first

place, to make certain an equal division of the active contents; and, secondly, to add to the appearance of the pill, and insure the confidence of both physician and patient.

If the ingredients are white, like quinine, duotal, or thiocol, the mass should be made with glycerate of starch and be coated with creta gallica or starch, so that they turn out white. If the prescription calls for iron (the excipient preferably glucose) there should be made a soft black mass, and the pills dusted with lycopodium. The character of the mass and its weight should be entered on the prescription, so that a repetition may be the same as the original in color, weight and size. The mark "M. F. Pil. L. A." (lege artis) on the prescription calls for the dispensing of the pills as small, round and uniform as possible, which presupposes the use of a proper excipient, both as to character and weight.

Capsules should preferably be dispensed dry, except when the ingredients weigh over 15 grains, or contain extracts; even then, dry powdered extracts should be used instead of moist ones. Great care must also be taken that no substance having any taste or odor should be outside of the capsules; they must be thoroughly wiped off with cheesecloth.

When calcined magnesia or any other kind of light substance is prescribed in capsule form, it is advisable to add a few drops of alcohol or ether, so that the bulky powder thus resulting will not be as large as before, and it can be dispensed in a much smaller capsule.

If oily substances are prescribed, and soft capsules are used, care must be taken in wiping them off **with ether**, which gives the capsule a better appearance and removes the odor and taste from the outside. If liquid sub-

stances mixed with dry powders are prescribed, like

Creosote	2 grains
Duotal	3 "

(we have frequently had similar prescriptions), it is advisable to put up the duotal capsules first dry, and then with a dropper add to each capsule 2 drops of creosote, and put same in a double capsule.

In regard to capsules specially imported from European countries, bearing fancy names, we find that the manufacturer prints the name over the surface of the highly glazed globules, appearing very much like a child's toy.

This has a definite significance to the patient, who knows that the prescription is a stock preparation and all ready to serve, and wonders why it took an hour or more to be ready. How many different makes are on the market today, and what capital would be required to have them all in stock! Some time ago I filled a physician's prescription for a certain capsule put up by one of the French manufacturers, and after the patient opened the box and saw these printed and labeled affairs, she was afraid to take one, and returned same with the remark: "I think it is a shame for a druggist to dispense a capsule to be swallowed that has printing matter on it."

In conclusion, I would say that if the pharmacist would pay a little more attention to turning out the pills as round and nice as possible, and the capsules as small, neat and clean as possible, marking on the prescription the weight of the mass and size of the capsules, the physicians would not have so many complaints from their patients, and the medical profession today would never prescribe pills and capsules of whose ingredients they are generally very much in the dark, but would prefer regular prescriptions specifying each ingredient.

The physician would be better off, the public would be safer, and the pharmacists would derive more profit and be looked upon by physicians and the public not as merchants, but as professional men.

CALIFORNIA MEDICINAL PLANTS

By Albert Schneider

243. **Citrullus colocynthis** Schrad. Colocynth. Bitter apple. Cucurbitaceæ.

Has been grown in Mexico and promises to do well in this State. A laxative. Poisonous. Well known medicinally. (U. S. D.)

244. **Citrus limonum** L. and varieties. Lemon. Aurantiaceæ.

Extensively cultivated in southern portions of the State. Related fruits, as the grape fruit, lime, with their numerous culture varieties and artificial crosses, are cultivated in the State. (See publications by Le Long.) Bailey. Cycl. Am. Hort. 322.)

245. **Claviceps purpurea** Tul. Ergot. Fungi.

This fungus occurs on rye and other cereals. On the western plains it is found on the following grasses: **Elymus** species, **Agropyron** species, **Koeleria cristata** (Prairie June grass), **Phalaris arundinaceæ** (reed canary grass), more commonly on **Elymus condensatus** (wild rye grass) and **Agropyron spicatum** (bluejoint grass). On these hosts it is the cause of poisoning cattle. General medicinal uses known to Indians. A very useful hæmostatic. (Contrib. U. S. Natl. Herb., VII: No. III, 299.) (U. S. Disp. 511.)

246. **Clematis lasiantha** Nutt. Pipestem. Large-flowered clematis. Ranunculaceæ.

Quite common. Requires study. Perhaps has properties like those of **C. erecta**, **C. flammula**, **C. vitalba** and **C. virginiana**, which have been used medi-

cinally in the treatment of cancer, ulcers, syphilitic eruptions, the itch, etc. Some species are much cultivated as ornamental plants.

247. **Clematis ligustifolia** Nutt. Ranunculaceæ.

Stem and leaves are chewed to cure colds. Another common California species known as hill clematis.

248. **Clintonia andrewsiana** Torr. Purple clintonia. Liliaceæ.

Considered a valuable diuretic mild tonic and demulcent. (Kellogg. Trans. State Agr. Soc., p. 148.)

249. **Cnicus (Carduus) benedictus** L. Blessed thistle. Compositæ.

Introduced in the University gardens at Berkeley, but threatened to spread as a noxious weed and was promptly exterminated. Leaves worth about twenty-five cents per pound. Seeds and herb used in medicine.

250. **Cocos** species. Coco nuts. Palmæ.

The coco nut palms thrive in southern California. Many species and varieties are being introduced.

251. **Cocos nucifera**. Coco nut palm. Palmæ.

Cultivated in warmer parts of the State. Promises to be a commercial success.

252. **Colchicum autumnale** L. Colchicum. Meadow saffron. Convallariaceæ.

A native of southern Europe, Switzerland, and Turkey. Extensively cultivated in Europe. Requires rich moist soil, in the open. Easy of cultivation. The corms (tubers) are used, having decided diuretic laxative and alterative properties; much used in rheumatism and gout. Poisonous. Seeds are also used. Value, thirty-five cents per pound.

The corms are collected the second year, after seeds are ripe, washed, sliced and dried in the sun. Seeds are



collected when fully ripened. The present market is supplied from England and Germany.

253. *Coleosanthus californicus* Kuntze. Brickellia. Compositæ.

Leaves used as a substitute for tea. (Contrib. U. S. Natl. Herb. VII: No. III, 393.)

254. *Collomia gracilis* Dougl. Polemoniaceæ.

The seeds soaked in water give a highly mucilaginous cooling drink known by the Mexicans as "Chia." (See paper by E. Palmer.)

255. *Colutea arborescens* L. Bladder senna. Papilionaceæ.

Cultivated as an ornamental shrub. The leaflets are purgative and used as a substitute for senna.

256. COMPOSITÆ.

The following members of the family, besides many others having medicinal properties, are common:

Arnica discoidea Benth. Coast Arnica.

Arnica latifolia Bang. Arnica.

Cnicus benedictus L. Blessed thistle.

Cichorium intybus L. Chicory. Introduced.

Gnaphalium species.

Helianthus ammus L. Common sunflower.

Lactuca scariola L. Prickly lettuce.

Sonchus oleraceus L. Sow thistle.

Senecio vulgaris L. Common groundsel.

Solidago species. Golden rod.

Xanthium canadense Mill. Cocklebur.

257. "Conchatana."

A medicine made from the roots of some plant used at Bodega, Calif. Requires further investigation.

258. *Conium maculatum* L. Poison hemlock. Apiaceæ. (Umbelliferæ.)

A well-known poison plant, native of Europe and Asia, but common in U. S. Escaped from cultivation. Leaves and

seeds used, twenty cents per pound. Easily cultivated. (B. Hutchins, *Conium Maculatum*, Wild Parsnip. Calif. College Phar. 1902. Thesis.)

259. *Convallaria majalis* L. Lily of the Valley. Convallariaceæ.

A well-known plant, cultivated extensively as an ornamental plant. The rhizomes and roots are heart tonic and diuretic. Used medicinally in dropsy, heart disease, weak heart, etc. Properties much like those of digitalis. Poisonous. Cultivation easy, simple, and would no doubt be fairly profitable on a large scale. Price per pound, sixteen to twenty cents. For uses and physiological action see Proc. A. Ph. A. (Abs.) 31:101-102, 1883, and text books and dispensaries.

260. *Convolvulus arvensis* L. Common bindweed. European Bindweed. Convolvulaceæ.

A very common troublesome weed. A tincture is made from the entire plant.

261. *Cornus florida* L. Dogwood. Cornaceæ.

Introduced ornamental plant. Cultivated as an ornamental tree throughout the State. Bark well-known medicinally. Used in intermittent fevers, as an astringent tonic, etc. (U. S. Disp.)

262. *Cornus pubescens* Nutt. Red willow. Cornaceæ.

Eaten raw and dried for winter use. No medicinal uses appear to be made of this plant.

263. *Cotyledon californicum* Trelease. Hen and chickens. Crassulaceæ.

Indians use the leaves in making a soothing poultice. The young leaves of *C. edulis*, *C. laceolata* and *C. pulverulenta* are eaten by the Indians.

264. *Coptis* species. Golden thread. Ranunculaceæ.

The native species require further study. The roots are bitter and used

as a tonic and as a local application in aphthous ulcerations of the mouth.

265. *Crataegus oxyacantha*. European Hawthorn. Rosaceæ.

Introduced; very common as an ornamental plant. Leaves, bark, flower and fruit have been used medicinally, principally as a cardiac tonic. (See G. M. Beringer. Am. Journ. Pharm. 76: 283-284, 1904.)

266. *Crataegus rivularis* Nutt. Thorn tree. Rosaceæ.

Thorns of the stem said to be poisonous. Fruits sometimes eaten by Indians.

267. *Crocus sativus* L. Saffron. Iridaceæ.

I am not aware that this plant is actively grown, but it would certainly thrive well in the State. Stigmas used as a coloring agent by baker and confectioner. Well-known medicinally.

268. *Crotalaria sagittalis* L. Rattlebox. Papilionaceæ.

South, central and eastern United States. Not definitely reported from California. Poisonous plant which requires further study.

269. *Croton californicum* Müll. Euphorbiaceæ.

A bitter tea is made from the leaves and used for rheumatism, and as a salve (powdered leaves and tallow). Purgative.

270. *Croton tiglium* L. Croton oil plant. Euphorbiaceæ.

This and other foreign species and varieties grow very readily in the southern part of the State and some of them are very common as ornamental plants. Well-known medicinally. Poisonous.

271. **CRUCIFERÆ**. Mustard family.

The mustard family is well represented in the State. Many members occur as very troublesome weeds. Many species are naturalized, and

others are native. Their medicinal, popular and household use is familiar to all. The following are the more important species: (Calif. Geol. Surv. Bot. I: 25.)

Sissymbrium officinale Scop. Hedge mustard.

Sissymbrium pinnatum (Walt.) Tansy mustard.

Cakile americana Nutt. Sea rocket.

Brassica campestris L. Common yellow mustard.

Brassica arvensis (L.) Charlock.

Brassica nigra (L.) Black mustard.

Brassica alba Boiss. White mustard.

Raphanus sativus L. Wild radish.

Raphanus raphanistrum L. Jointed Charlock.

Arabis virginica Trelease. Cress.

Arabis glabra Beruh. Tower mustard.

Arabis blepharophylla H. & A. Cress.

Arabis breweri Wats. Brewer rock cress.

Barbarea vulgaris R. Br. Winter cress.

Nasturtium officinale R. Br. Water cress.

Nasturtium curvisiliqua Nutt. Western yellow cress.

Nasturtium palustris D. C. Marsh yellow cress.

Cardamine oligosperma Nutt. Bitter cress.

Capsella bursa-pastoris Moench. Shepherds purse.

Capsella procumbens Fries.

Camelina sativa Crantz. False flax. Seeds rich in oil.

Alyssum calycinum L. Small alyssum.

Alyssum maritimum Lane. Sweet alyssum.

Lepidium medium Greene. Tall pepper grass.

Lepidium nitidum Nutt. Common pepper grass.

Scientific Notes

SPICE ADULTERATIONS

By Henry B. Carey, M. D.

The majority of spices upon the market at the present time do not show intentional adulteration. In fact, there has been a marked improvement in this class of materials. The adulterants of spices consist of inert foreign materials, such as sawdust, dirt, nut-shells, fruit-stones, and so-called waste products from wheat, corn, rice, etc. In times past a great variety of things were used with the intent of adulteration, and the above-mentioned adulterants were very commonly found. During the last two years a number of spices have been analyzed at the California College of Pharmacy, and to our great surprise, so far as microscopical examination goes, no noteworthy intentional adulterations were found. The microscope, however, will not materially aid in detection of poor quality or exhausted drugs. This form of deception is still practiced. Many specimens are found wanting when it comes to the chemical analysis. Powdered drugs and spices containing especially volatile constituents deteriorate very rapidly unless handled with unusual precaution. Hence even here due allowance must be made before giving final decision. The use of an inferior quality of the crude drug is still not uncommon. The chemical analysis is about the only safe check upon this method of deceit. According to the Minnesota Drug and Food Commission, pepper is the most commonly adulterated spice. During the last two years approximately 20% of the specimens examined were found adulterated. Ground olive stones were used in most cases. Starch and cocoanut shell were also used. Specimens said to be "100% pure" by the manufacturer were found to be grossly adulterated. It is of interest and satisfaction to us to know that we are getting a much better class of spices now than a few years ago. Firms hoping to acquire riches in this field by practicing deception are meeting with disappointment.

KIDNEY IRRITANTS

Dr. Wiley of the Department of Agriculture claims that the use of food preservatives is conducive to the devel-

opment of kidney diseases. This is denied by others, who refer to the English people, who have been using preserved foods for a quarter of a century and who are exceptionally free from kidney diseases. If the minimum amount of preservative necessary to preserve food is conducive to kidney diseases, what shall we say of such well-known kidney and liver irritants as pepper, allspice, cinnamon, ginger and mustard. Perhaps it is time a Federal enactment was passed compelling discontinuance of the use of these old-time popular spices.

Cultivation of Gensing in Santa Clara Valley

From the San Jose *Mercury* we learn that several persons have begun experimental work on the cultivation of Gensing in that locality. The results so far are as follows:

Mr. Fred O. Frenzel of Roab & Frenzel, on the Senter Road and Coyote Creek, have a fair sized garden of it, in one to five-year-old plants.

G. A. Anderson of Sunnyvale also has a Gensing garden, and Henry Dreischmeyer of Third and Keyes Streets, grows it for medical purposes.

Mountain View also has one garden.

Thus far it has not been grown to any commercial extent, and all use lath coverings, that it may be protected. The plant in its natural state, grows in a forest, and in many instances the root takes on peculiar shapes. In some instances the root has formed perfect shape of the human body.

M. B. Atkinson of Saratoga has grown a few plants in a shady place under some alder trees bordering a creek on his home farm. At last accounts the plants were thriving, producing flowers and fruits.

As this enterprise is young and requires many years before it can mature, Secretary Brooks is not in a position to state with what degree of profit or success the enterprise may develop, but if any person is interested sufficiently, a visit to any of the growers will prove of value, because of their personal experience with the plant.

Extracts and Comments

IMPROVED FORMULA FOR EMULSION OF CASTOR OIL

Wilbert (Am. Jour. Pharm., Nov., 1907) states that of the substances that have been tried to facilitate the emulsion of castor oil the only efficient one is soap. Acacia, tragacanth, yolk of egg or casein tend to form too viscid a preparation, and saponin is objectionable on account of its possible deleterious effects. Wilbert's method of preparing the emulsion with soap is as follows: In a clean, dry mortar 1.5 Gm. of powdered castile soap is thoroughly mixed with 50 Cc. of castor oil and 3 Cc. of spirit of peppermint. Stirring constantly 1 Cc. of the N. F. solution of saccharin and water up to 100 Cc. are gradually added. This forms a white limpid emulsion that partially separates on long standing, but easily mixes again when shaken. If prepared with liquid soap the castor oil and the spirits of peppermint are thoroughly shaken up with 5 Cc. of liquid soap in a bottle, the saccharin solution and water being gradually added. Syrup may be used in place of the saccharin if desired.

In **Popular Science**: The following conversation is reported: After listening an hour to the remarks of Prof. Chittenden at a Lowell lecture in Boston, illustrating the value of proteids for the system, two women were leaving Huntington Hall, when one, turning to the other, said, "Grace, are oranges proteids?" "I don't know what proteids are," said the other, "but I shall always eat them in the future."

Fuller's Earth

It appears that Arkansas has for the last four years, and will undoubtedly in the future furnish a large supply of Fuller's earth. From the **Paint, Oil and Drug Review**, we learn that Benton and Saline coun-

ties have large quantities of this material. It appears that little has been said about this new industry.

Five miles west of Benton there is an area two miles wide by four miles long, which contains rich deposits of this material. It occurs in veins from 16 to 22 inches in diameter, some reaching the surface of the ground, others being 150 feet below the surface.

The Armour Packing Co., of Chicago, has been making use of this clay in the lard refineries. It has been operating three mines in order to obtain sufficient material.

The clay in the unrefined state sells at \$15.00 a ton, the refined material selling at a very much higher rate.

Cement to Render Cisterns and Casks Watertight

An excellent cement for resisting moisture is made by incorporating thoroughly 8 parts melted glue, of the consistence used by carpenters, with 4 parts linseed oil boiled into varnish with litharge. This cement hardens in about 48 hours and renders the joints of wooden cisterns and casks air and watertight.—Contributed by Frank Pavlik, Jr., Winnetka, Ill., to **Popular Mech.**

Varnish for Violins

To 21 parts of 90 per cent alcohol add 160 parts of Sandarac gum, 80 parts of Mastick gum, and 750 parts of turpentine varnish in a tin can. Set in a warm place. Keep it well agitated until completely dissolved, and strain it.—**Scientific American Suppt.**

Heroin and the Heroin Habit

It has been claimed for heroin, the diacetyler of morphine, that it is less poisonous than morphine, and also that it is generally more efficient and more reliable. According to M. P. Duhem, heroin does not possess any of these advantages. He found it to be fifteen times more poisonous than morphine for rabbits, and believes it to be equally poisonous for man.

He also states that heroin induces to a habit that is even more dangerous and more difficult of treatment than the morphine habit. (*Apotheker Zeitung*.)

When stripped of its legal verbiage the Pure Food and Drugs law is seen to make the sensible provision that after January 1 users of patent medicines and drugs will enjoy the safeguard of knowing what they are taking into their systems and that it is pure.

Things in the medical and drug line which heretofore have been a mystery to the layman will be revealed on the labels which the law requires. Medicines containing alcohol must bear a label telling the amount of spirits, so that the consumer may know whether he is really being benefited or merely the victim of a mild "souse." Cough medicines must bear a label telling of the amount of opiates contained, and so on down the line.

Furthermore, all drugs must be up to the standard of the United States Pharmacopoeia, which means nearly absolute purity.

Pharmacy in Mexico

The society "Farmaceutica Mexicana" has held an important session, during which interesting works were read by Prof. Juan B. Calderon and Prof. Miguel Cordero. The committee appointed to call upon Vice-president Corral to ask his support reported that Mr. Corral was willing to do all he could for the progress of the association, and that he would speak to Dr. Liceaga on this matter.

The association intends to make several amendments to the drug store regulations. It is also intended to establish a practical school for pharmacists, where diplomas will be issued to all those who, after an examination, prove to be able to fill the post of clerks in drug stores.

We publish below a partial list of drug items imported into the United States during the year 1907, and, while the list comprises such as are common to all drug stores, the aggregate is somewhat startling in view of the smallness of the usual retail sale.

	Pounds
Acid, benzoic	615,430
" carbolic	2,830,592
" formic	215,621
" oxalic	7,296,246
Alum	2,507,513
Ammonia carb.	527,703
Arsenic	2,829,828
Balsam copaiba	225,988
" Peru	15,903
Bark cinchona	3,517,981

Camphor, crude	3,138,397
Cloves	3,491,372
Cocoa butter.....	4,418,839
Gelatin	1,335,701
Ginger root	4,161,681
Glycerin, crude	37,136,812
Gum Arabic	7,084,468
" tragacanth	1,379,883
Iodine	529,080
Licorice root	66,144,390
Oil bergamot	106,962
" citronella	820,310
" cocoanut	35,555,603
" lavender	201,284
" rose	111,594
Pepper, Cayenne	4,222,163
Potash carbonate	18,652,608
Seed, anise	744,166
Senna	1,774,806
Talcum	16,108,687
Paraffin	185,511,773

ARE YOU THE MAN?

There's a scary sort of feller goin' 'round
the country through

A-talkin' of the future in a way to make you
blue;

A-predictin' woes and panics and all kinds
of dreadful shocks,

And a-blamin' folks in Wall Street and con-
demnin' deals in stocks;

Sayin' our financial system is a structure
full of faults,

And a-callin' in his money and a-lockin' it
in vaults,

And with wish to bring him forward and
convert him if we can,

We are seekin' information—

Say, are You the Man?

Shucks! Don't let a little flurry from the
clouds a-passin' by

Make you think the storm has covered all
the broad financial sky;

You would see the sun still shinin' if you'd
just poke out your head;

Stop a-countin' up your losses; count your
blessin's up instead;

Trouble finds the man who falters sooner
than the man who fights;

Quit your talk of comin' panics; help at
settin' things to rights,

Let a little cheerful confidence, not grum-
blin', be your plan

Now to save the situation—

Say, are You the Man?

—Grand Rapids Herald.

The Shearing of Wiley

It was time that a curb should be put on Dr. Wiley's arrogance. He is a man of narrow mind and measures everything by one standard—the chemical. His rulings on the matter of sulphuring dried fruits were the product of ignorance, or rather the outcome of that little knowledge which is always a dangerous thing.

It is announced from Washington that Dr. Wiley, who hitherto has been autocrat of all questions arising under the pure food law, has been shorn of his powers in all disputed matters, and the President will create an organization that will virtually constitute a court of appeal for difficult and complicated questions in the regulation of food products. University presidents from leading institutions of learning have been requested by Roosevelt to furnish lists of men qualified by experience and learning to deal with such matters. Among others, President Wheeler of the University of California has been asked to submit names of men qualified to sit on a commission of this character.

The question, What is pure food? is by no means simple. Ever since the enactment of the law Dr. Wiley has been in hot controversy with the distillers over the formulation of a definition of whisky. The argument over sulphuring fruits in California offers another example showing how the prosperity of a great and important region may be dependent on the ruling of one narrow-minded man. Of course, that system was all wrong and could not last in a country where every act of government is done in the full light of publicity. The Call has the fullest confidence that California will be able to demonstrate that the use of sulphur for curing dried fruit is in fact beneficial because it acts as a valuable germicide.—**San Francisco Call.**

Food will be deemed adulterated in its manufacture, within the meaning of the Pure Food law of this State, in any of the following cases:

1. If any substance has been mixed or packed or mixed and packed with the food so as to reduce or lower or injuriously affect its quality, purity, strength or food value.

2. If any substance has been substituted wholly or in part for the article of food.

3. If any essential or any valuable constituent or ingredient of the article of food has been wholly or in part abstracted.

4. If it be mixed, colored, powdered, coated or stained in any manner whereby damage or inferiority is concealed.

5. If it contain any added poisonous or other added deleterious ingredient.

6. If it consist in whole or in part of a filthy, decomposed or putrid animal or vegetable substance, or any portion of an animal or vegetable unfit for food, whether manufactured or not, or if it is the produce of a diseased animal, or one that has died otherwise than by slaughter; provided that an article of liquor shall not be deemed adulterated, mislabeled or misbranded if it is blended or mixed with like substances, so as not to injuriously reduce, lower or affect its quality, purity or strength.

7. In case of confectionery, if it contain terra alba, barytes, talc, chrome yellow or other mineral substances, or poisonous color or flavor, or other ingredient deleterious or detrimental to health, or any vinous, malt or spirituous liquor or compound or narcotic drug.

THE VITRIOLIC OUTBURSTS OF DR. J. N. McCORMACK

For the information of pharmacists it may be stated that Dr. J. N. McCormack of Bowling Green, Ky., is the organizer of the American Medical Association, and as such must be a very influential person in that powerful organization. It grieves us to learn that he has again permitted his temper, coupled with ignorance (ignorance as to things pharmaceutical) to make great havoc with his reason. According to the February issue of the **Western Druggist**, from which we quote, he has been guilty of making serious charges against pharmacists. In an address delivered at Elkton, Ind., he is quoted as having said: "The average drug store in this country is a disguised saloon for the sale of cheap whisky and dope." In an address before the National W. C. T. U., at

Nashville, Tenn., he is said to have spoken as follows:

The average drug store is little more than a saloon for the sale of disguised alcohol and dope. But this is not the worst thing that is going on in the drug stores. Seventy-five per cent of the diseases of young men resulting from immorality are not treated scientifically by doctors, but are treated by little boy clerks in drug stores, who laugh about these things and make a joke of them and thus encourage young men to be immoral. And that is not yet the worst of it either. These young men, having faith in what has been done for them, and believing themselves cured—but most of them incurable and dangerous as long as they live—go out and after a little while, or after a few years they marry your sisters and daughters; and in a little while a large per cent of these women are in the hands of a medical man for treatment. Over fifty per cent of the surgical operations performed for women in the United States last year are shown, officially, to have been from this thing, etc.

This is a very grave accusation and is as absurd as it is untrue. Such an accusation could emanate only from an addled brain. Let us hope that said brain was only temporarily addled, and that recovery is complete by now.

McCormack is reported to have said in an address at South Bend, Ind., that three-fourths of the babies that died, died because they were given a proprietary medicine, and at Elkton, Ind., he is quoted as saying: "Some doubter might say: 'Why don't we all die from the use or abuse of nostrums?' One-third of us do die."

This statement is fully as absurd as the other, and was likewise uttered while the brain was addled. A reply to such accusations is not called for. We merely desire to call attention to them. We believe that the American Medical Association, at its next annual meeting, will see to it that Dr. McCormack is properly restrained.

It may be that some of the press statements credited to McCormack are not correct. If he has been wrongfully

accused, we will apologize forthwith. If, however, he admits the quoted statements as being his, we do not hesitate in denouncing him as a vicious prevaricator. We hope this is clear.

ALBERT SCHNEIDER,
Member Com. on Publicity, A. Ph. A.

Don't Never Weaken

Tain't no use to borrow trouble when
you've got a stock on hand;
Take the tail o' the procession if you can't
git next the band;
Lunge ahead; don't never weaken; keep a
stiffish upper lip,
An' if care an' trouble crowds you, squeeze
the harder on yer grip.
Face the world with resolution o' the proper
"git there" kind;
When the clouds are rollin' blackest don't
forgit they're silver lined;
Keep a pushin' for the sunshine lyin' jest
beyond the fog,
An' yer bound to git there easy as a'rollin'
off a log. —Exchange.

A Town to Avoid

The town of Yawn
On the banks of the river Slow,
Where blooms the Wait-a-while flower fair,
Where the Something-or-other scents the
air,
And the soft Go-easys grow:
It stands in the valley of What's-the-use,
In the province of Let-it-slide;
The tired feeling is native there,
'Tis the home of the listless I-don't-care,
Where the Put-it-offs abide.
—Canadian Druggist.

The production of quicksilver in the United States in 1906 was 26,238 flasks of 75 pounds each, valued at \$958,634, as compared with 30,451 flasks, valued at \$1,103,120 in 1905, a decrease in quantity of 4,213 flasks and in value of \$144,486. Of the total product, California furnished 20,310 flasks, valued at \$730,808; Texas, 4,761 flasks, valued at \$178,829; Utah, 1,164 flasks, valued at \$48,888; and Oregon 3 flasks, valued at \$109. The decrease was due to the falling off—more than 4,000 flasks—in the output of the California mines, as the Texas producers made a small gain and those of Utah a somewhat greater one.

Formulas

Household Ointment

Phenol	450 gr.
Camphor	450 gr.
Thymol	150 gr.
Menthol	150 gr.
Eucalyptol	150 min.
White wax	1500 gr.
White petrolatum	7500 gr.

Melt all together except last two. Melt these on water-bath, add the first mixture and pour into jars.

Insect Exterminator

(For poultry.)

Crude carbolic acid	1 pt.
Carbon disulphide	1 oz.
Oil tar	1 oz.
Coal oil	4 oz.

Mix. Put up in pint and quart cans with following directions for use:

Saturate sawdust with the mixture and sprinkle in bottom of nests and around the coop.

Insect Powder

Sulphur	4 oz.
Tobacco dust	6 oz.
Oil cedar	¼ oz.
White hellebore	4 oz.
Crude naphthol	2 oz.
Powd. chalk	q. s. 2 lb.

The chalk is added to increase the bulk.

Insect Powder

Dalmation insect powder....	1 lb.
Moth balls (powd.).....	1 oz.
Oil cedar	2 dr.

Mix.

Long Life Tonic

Fld. ext. gentian,	
Fld. ext. cinchona,	
Fld. ext. cascara	aa 2 fl. oz.
Sol. cit. iron	20 fl. dr.
Spirit orange	1 fl. oz.
Syrup	1 pt.
Hot water	8 fl. oz.
Sherry wine	q. s. 8 pt.

Dissolve the iron in the hot water and add the other ingredients, then filter.

Cold Tablet

Acetphenetidine	1 gr.
Aloin	⅛ gr.
Atropine sulph.	¹ / ₂₀₀₀ gr.
Fld. ext. aconite	¹ / ₅₀ min.
Fld. ext. boneset	¼ min.
Cascarine	¼ gr.
Powd. capsicum	⅓ gr.
Fld. ext. gelsem	½ min.
Ipecac powd.	¹ / ₂₀ gr.
Podophyllin	¹ / ₂₀ gr.
Quinine	½ gr.

Selected by L. W. Marshall, Lexington, Mo., for the Retail Druggist

Almond Cream

Powd. castile soap	2½ dr.
Powd. boric acid	¾ dr.
Powd. gum tragacanth	90 gr.
Glycerin	6½ oz.
Water	2 pt.
Tinct. benzoin	1 fl. oz.
Essential oil almond	1 fl. dr.

Put up in tall 4-oz. Blake bottles, label with lithograph label, cap with kid, and sell for 25 cents.

Diarrhoea Remedy

Alcohol	1 gal.
Gum camphor	1¼ oz.
Oil peppermint	2½ dr.
Water	1½ gal.
Tinct. rhatany	5 oz.
Tinct. nutgalls	10 oz.
Tinct. opium	10 oz.
Ext. logwood	3¾ oz.
Sugar	10 lb.

Electric Benzine

(For removing grease, etc., from clothes.)

White castile soap	1 dr.
Alcohol	4 dr.
Glycerin	1 oz.
Aq. amonia	1 oz.
Sulph. ether	1 oz.
Water, q. s.	1 pt.

Mix.

Add 3 drams of above mixture to a 4-ounce bottle, then add gasoline little by little, shaking thoroughly after each addition until bottle is full. The re-

sulting mixture will be a thick snow-white mixture.

Directions.—Place a piece of cotton cloth under the spot to be cleaned, and apply with a sponge or rag. It should not be used near a flame.

Eye Salve

Morphine sulphate 5 gr.
Acid boric 30 gr.
Acid benzoic 10 gr.
Zinc sulphate 10 gr.
Ammoniated mercury 1 gr.
Hydrastine hydrochloride .. 1 gr.
Ointment zinc oxide 1 oz.

Mix.

Family Salve

Pine tar $\frac{1}{2}$ oz.
Carbolic acid 3 fl. dr.
Resin $1\frac{1}{2}$ oz.
Petrolatum 8 oz.

Favorite Talcum Powder

Boric acid (fine powder).. 1 oz.
Salicylic acid 100 gr.
Venetian talcum (fine powd.) $7\frac{1}{2}$ lbs.
Powd. orris root..... 1 oz.
Ext. violet $\frac{3}{4}$ oz.

Mix.

Flora Shampoo Powder

Salts tartar 1 oz.
Powd. borax 1 oz.
Powd. castile soap $\frac{1}{2}$ oz.
Oil rose geranium 15 drops

Foot Powder

Salicylic acid 100 gr.
Boric acid (powd.)..... 300 gr.
Powd. alum 60 gr.
Powd. talcum 8 oz.

Put up in 1-oz. paper boxes, label, and sell for 25 cents.

Furniture Polish

Balsam fir 1 lb.
Sulphuric ether 1 pt.
Damar varnish 1 pt.
Boiled linseed oil, q. s..... 1 gal.

Dissolve the balsam fir in the ether, then add other ingredients and mix well.

Directions.—First remove all dirt and grease, then apply, polish with cotton cloth and rub with soft cotton cloth until nearly dry.

Shake well before using.

Glycerin Lotion

Glycerin 4 fl. oz.
Orange-flower water 4 fl. oz.
Tinct. benzoin 20 drops

Put up in 2-oz. tall Blake bottles, label, cap, and sell for 15 cents.

Grip and Cold Cure

Asafetida 10 gr.
Quinine sulphate 10 gr.
Powd. camphor 10 gr.
Powd. capsicum 10 gr.

Put up in 5 capsules.

Hair Tonic

Quinine sulphate 30 gr.
Jamaica rum 3 fl. oz.
Glycerin 1 fl. oz.
Tinct. cantharides 3 fl. dr.
Tinct. capsicum 3 fl. dr.
Strong infusion sage,
to make $1\frac{1}{2}$ pt.

Put up in 8-oz. bottles, cap, label, and sell for 50 cents.

Headache Stopper

Acetanilide powder 12 oz. troy
Calicylate soda 480 gr.
Bicarb. soda 3 oz. troy
Rochelle salts 4 oz. troy
Caffein (alkaloid) 80 gr.
Saccharin 25 gr.
Powd. chocolate, q. s. color.

Honey, Mullein and Tar Cough Syrup

Horehound herb 1 oz.
Mullein leaves 1 oz.
Sanguinaria root $1\frac{1}{2}$ dr.
Water 2 pt.
Syrup tar 2 fl. oz.
Honey 4 fl. oz.
Sugar $1\frac{1}{2}$ lb.
Syrup q. s. 3 qt.

Make an infusion of the horehound, mullein and sanguinaria with the water, cool, strain, then dissolve sugar in the liquid by agitation, add remaining ingredients and enough syrup to make.

Those desiring National Formularies can secure them by applying at this office.

BOOK NOTICES AND REVIEWS

Pharmaceutical and Chemical Problems and Exercises with Explanatory Tests

Including Pharmaceutical and Chemical Arithmetic, Weights and Measures, Specific Density and Specific Volume, and Chemical Notation and Nomenclature, Chemical Equations, Problems in Oxidation, Reduction and Stoichiometry, together with the Elementary Theoretical Chemistry necessary to their understanding. Intended as aid to Students, Teachers, and Examiners. By Oscar Oldberg, Pharm. D., Professor of Pharmacy and Dean of the School of Pharmacy of Northwestern University; author of Inorganic Chemistry, General, Medical and Pharmaceutical, etc. Fourth edition. Revised and enlarged.

This valuable work has been almost entirely rewritten, and is now so greatly enlarged as to be a complete text-book. Dr. Oldberg, whose reputation and long experience as a teacher of pharmacy and applied pharmaceutical chemistry are well known, calls attention in the preface to the fact that a thorough command of the subjects embraced in this work is indispensable to pharmacists and chemists, and can be acquired only by greater special attention and actual practice than usually given to them in general text-books on pharmacy and chemistry.

Recognizing the fact, which our own experience has made painfully evident, that students often display serious deficiency in their arithmetic, the author has devoted 140 pages to a Review Course in Arithmetic, dealing with Fractions, Proportion, Percentage, Alligation, etc., followed by Weight and Measures, exercises in converting these from Metric to Avordupois, etc., Specific Density, etc. Then follows Review Course in Elementary Chemistry, Chemical Notation, etc.

It is a work which any student in pharmacy can use with great benefit, and will be an efficient aid to instructors in directing the studies of young people in those rudimentary matters which are essential to a thorough mastery of theoretical pharmacy and chemistry. Chicago Medical Book Company, Chicago. Price, \$3.00.

We have received the following from the Welcome Chemical Research Laboratories, London:

The Constituents of the Essential Oil of American Pennyroyal, by Marmaduke Barrowcliffe, A. I. C.

The Constitution of Homoeriodictyol, by Frederick B. Power, Ph. D., and Frank Tutin.

The Interaction of Methylene Chloride, and the Sodium Derivative of Ethyl Malonate, by Frank Tutin.

Chemical Examinations of the Barks of Brucea Antidysenterica, **Lam.** by Frederick B. Power, Ph. D., and Arthur H. Salway, Ph. D.

Chemical Examination of the Barks of Brucea Antidysenterica, **Lam.** and Brucea Sumatrana, **Roxb.** by Arthur H. Salway, Ph. D., and Walter Thomas.

Chemical Examination of Grindella, Part II, by Frederick B. Power, Ph. D., and Frank Tutin.

Chemical Examination of Lippia Scaberrima, *Sonder* ("Beukess Boss"), by Frederick B. Power, Ph. D. and Frank Tutin.

Chemical Examination of the Root and Leaves of Morinda Longiflora, by Marmaduke Barrowcliffe, A. I. C., and Frank Tutin.

The Proceedings of the Fifty-fifth Annual Meeting of the American Pharmaceutical Association, held in New York, September, 1907, have just been received. It is a volume of about 1,000 pages, full of the most valuable matter for live pharmacists, to whom it is worth more than the cost of the annual membership dues. As a frontispiece there is an excellent likeness of the late Albert E. Ebert, who did so much for American pharmacy, especially in his own city, Chicago.

Mr. Warren Geary, who has for the past three years been head druggist for the Clark Drug Company, Petaluma, has accepted a position with the Young Drug Company, and will begin his new duties on the first of the month. Mr. Geary resigned his position a few days ago to take charge of the prescription department of Lengfeld's Pharmacy in San Francisco, but was induced to remain in Petaluma by the Young Drug Company at an increased salary.

Food Inspection

FOOD INSPECTION DECISION 83

The Issue of a Guaranty Based Upon a Former Guaranty

Food Inspection Decision 83 is a lengthy opinion by Attorney-General Bonaparte on the extent of the protection afforded to a dealer who buys goods bearing a guarantee label, in the event of such goods being afterwards declared to be adulterated or misbranded. The question has been asked, "Does the retailer suffer in such a case?" The gist of the opinion is in the following paragraph, and this opinion holds good until upset by a decision in a court of law:

The intention of Congress appears to have been to relieve from liability any person who would be otherwise subjected to any prosecution under the act if he establishes a guaranty from the person who sold him the goods, provided such person is a resident of the United States and therefore himself within the reach of prosecution, and to make such original guarantor subject to prosecution in lieu of the subsequent offender, Congress evidently intending to refer back liability in such case, in general, to the original guarantor, who, of course, in the case of goods of domestic production, would usually be the manufacturer, who would know their real character and, in the case of goods imported from a foreign country, would be the importer, who would assume responsibility therefor, and to make the liability to punishment fall upon such original guarantor so far as possible.

FOOD INSPECTION DECISIONS 84 AND 85

84. Amendments to Regulations 17 and 19.

85. Labeling of Bitters

(F. I. D. 84.)

Amendments to Regulations 17 and 19

The Board of Food and Drug Inspection recommends that Regulations 17 and 19 of the Rules and Regulations for the Enforcement of the Food and Drugs Act of June 30, 1906, be amended to read as follows, such amendments to become and be effective at the date of issue:

Misbranding.

Regulation 17. Label.

(Section 8.)

(a) The term "label" applies to any printed, pictorial, or other matter upon or attached to any package of a food or drug product, or any container thereof subject to the provisions of this act.

(b) The principal label shall consist, first, of all information which the food and drugs act, June 30, 1906, specifically requires, to wit, the name of the place of manufacture in the case of food compounds or mixtures sold under a distinctive name; statements which show that the articles are compounds, mixtures, or blends; the words "compound," "mixture," or "blend," and words designating substances or their derivatives and proportions required to be named in the case of foods and drugs. All this information shall appear upon the principal label, and should have no intervening descriptive or explanatory reading matter. Second, if the name of the manufacturer and place of manufacture are given, they should also appear upon the principal label. Third, preferably upon the principal label, in conjunction with the name of the substance, such phrases as "artificially colored," "colored with sulphate of copper," or any other such descriptive phrases necessary to be announced should be conspicuously displayed. Fourth, elsewhere upon the principal label other matter may appear in the discretion of the manufacturer. If the contents are stated in terms of weight or measure, such statement should appear upon the principal label and must be couched in plain terms, as required by Regulation 29.

(c) If the principal label is in a foreign language, all information required by law and such other information as indicated above in (b) shall appear upon it in English. Besides the principal label in the language of the country of production, there may be also one or more other labels, if desired, in other languages, but none of them more prominent than the principal label, and these other labels must bear the information required by law, but not necessarily in English. The size of the type used

to declare the information required by the act shall not be smaller than 8-point (brevier) capitals: **Provided**, That in case the size of the package will not permit the use of 8-point type, the size of the type may be reduced proportionately.

(d) Descriptive matter upon the label shall be free from any statement, design, or device regarding the article or the ingredients or substances contained therein, or quality thereof, or place of origin, which is false or misleading in any particular. The term "design" or "device" applies to pictorial matter of every description, and to abbreviations, characters, or signs for weights, measures, or names of substances.

(e) An article containing more than one food product or active medicinal agent is misbranded if named after a single constituent.

In the case of drugs the nomenclature employed by the United States Pharmacopœia and the National Formulary shall obtain.

(f) The use of any false or misleading statement, design, or device appearing on any part of the label shall not be justified by any statement given as the opinion of an expert or other person, nor by any descriptive matter explaining the use of the false or misleading statement, design, or device.

Regulation 19. Character of Name. (Section 8.)

(a) A simple or unmixed food or drug product not bearing a distinctive name should be designated by its common name in the English language; or if a drug, by any name recognized in the United States Pharmacopœia or National Formulary. No further description of the components or qualities is required, except as to content of alcohol, morphine, etc.

(b) The use of a geographical name shall not be permitted in connection with a food or drug product not manufactured or produced in that place, when such name indicates that the article was manufactured or produced in that place.

(c) The use of a geographical name in connection with a food or drug product will not be deemed a misbranding when by reason of long usage it has come to represent a generic term and is used to indicate a style, type, or brand; but in all such cases the State or Territory where any such article is manufactured or produced shall be stated upon the principal label.

(d) A foreign name which is recognized

as distinctive of a product of a foreign country shall not be used upon an article of domestic origin except as an indication of the type or style of quality or manufacture, and then only when so qualified that it can not be offered for sale under the name of a foreign article.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

GEO. B. CORTELYOU,

Secretary of the Treasury.

JAMES WILSON,

Secretary of Agriculture.

OSCAR STRAUS,

Secretary of Commerce and Labor.

WASHINGTON, D. C., January 31, 1908.

(F. I. D. 85.)

Labeling of Bitters

In section 6 of the food and drugs act of June 30, 1906, the term "drug," as defined in the act, includes "all medicinal preparations recognized in the United States Pharmacopœia or National Formulary for internal or external use and **any substance or mixture of substances intended to be used for the cure, mitigation, or prevention of disease in either man or other animals.**"

Notwithstanding this comprehensive definition, it appears from a large correspondence on this subject that there is still some uncertainty as to whether or not certain commodities should be classed as drug products, and of this type are the alcoholic products known as "bitters."

It is necessary to determine definitely whether or not "bitters," for example, are to be classed as drugs. This is necessary for the reason that under section 8 of the food and drugs act a drug is deemed misbranded "if the package fails to bear a statement on the label of the quantity or proportion of any alcohol * * * contained therein."

On investigation of labels that are found on "bitters" it has been discovered that in most cases they are recommended for various ailments. For example, they are said to "aid digestion," "allay irritation of the nerves," "excite the appetite to a marvelous degree," "prolong life." Again, labels bear the statements "is not only a delicious beverage, but also a wonderful tonic," "valuable in intermittent fever, illness due

to the spleen, stomach catarrh, diarrhea, colic, cramps, vomiting, hypochondria, etc." These are examples of common phrases found on labels. "Bitters" are frequently prescribed in the same manner as medicines in general. For example, "to be taken in tablespoons full every hour," "increase the dose if the effect is not immediate," etc.

It is well known that certain substances may be used both as foods and as drugs. It is claimed by some that certain products advertised as medicinal products are not sold and consumed on account of their medicinal properties, but merely as alcoholic beverages. This, however, does not seem to be consistent with the information found on some of the labels.

In a case of this kind the classification will be made from a study of the literature published in connection with the article and by ascertaining the uses to which it is put. When a "bitters" is described on the carton or label attached to the bottle, or any advertising matter accompanying the package, as possessing any medicinal or tonic properties, or if in fact it does possess such value, it must of necessity be classed as a drug product and, in consequence of this classification, bear a statement of the quantity or proportion of any alcohol contained therein. The method of stating the proportion of alcohol is that of per cent by volume, as suggested in Regulation 28 of Circular 21 of the Office of the Secretary. In food Inspection Decision 52 is the suggested order in which the statements required by law should occur on a label.

This food inspection decision is promulgated so that those interested in the importation of "bitters" may understand how the Department is obliged to rule in such cases, the decision as to whether a product be a food or a drug depending not only upon what claims are made for it, but also upon the uses to which it is put. This same principle must guide the Department in its interpretation of the law governing similar products which have the dual function of serving as both foods and drugs.

H. W. WILEY,
F. L. DUNLAP,
GEO. P. McCABE,

Board of Food and Drug Inspection.

Approved:

JAMES WILSON,

Secretary of Agriculture.

WASHINGTON, D. C., February 3, 1908.

FOOD INSPECTION DECISION 87

Labeling of Corn Sirup

WASHINGTON, D. C., Feb. 13, 1908.

We have each given careful consideration to the labeling, under the Pure Food Law, of the thick, viscous sirup obtained by the incomplete hydrolysis of the starch of corn, and composed essentially of dextrose, maltose, and dextrine.

In our opinion it is lawful to label this sirup as "Corn Sirup"; and if to the corn sirup there is added a small percentage of refiner's sirup, a product of the cane, the mixture, in our judgment, is not misbranded if labeled "Corn Sirup with Cane Flavor."

GEO. B. CORTELYOU,

Secretary of the Treasury.

JAMES WILSON,

Secretary of Agriculture.

OSCAR S. STRAUS,

Secretary of Commerce and Labor.

Food Inspection Decision 86 deals with the vexed question of "Original Packages," and gives the interpretation put upon the term by the Department of Agriculture. It is a sixteen-page pamphlet, and recites a number of court decisions relating to articles of food, liquors, perfumes, cigars, etc., which would doubtless apply equally to drugs, proprietary medicines, etc. Those who are especially interested in this phase of the Pure Food Law should write to the Board of Food and Drugs Inspection, Washington, for a copy of the Decision.

California State Board of Pharmacy

The Board has been doing some very effective work recently in obtaining convictions for the violation of the Poison Law by the sale of narcotic drugs. It appears that many are grossly negligent in complying with the provisions of this law. It is reported that eight convictions were recently obtained in San Jose and six in Sacramento. The Board in prosecuting offenders is only doing its legal duty. Those who cannot practice pharmacy and still comply with the law should enter other fields of activity.

The result of the last examination is given below. It is said that an unusually large class took the examination and one-third less received the coveted papers: Whether this was due to the poor quality of the candidates or a raising of the educational standards, we are not informed. We shall hope that it is at least explained in

part by the latter. It is interesting to note that during the last year in a number of the Eastern States, the educational requirements for registration have been sharply increased. Let the good work go on.

The next meeting of the Board will be held in Los Angeles, commencing on Monday, June 8th, and in San Francisco, Monday, June 15th.

The following candidates were successful at the last meeting of the Board:

Licentiates by Examination

Clare C. Abbott	Millard R. Dickson
C. L. Carstensen	Jay B. Gibson
William Elbert Fox	Fred H. Jordan
Adolph Friedenthal	William O. E. Keller
F. H. Hartman	Charles Fremont Kingery
John H. Hudson	Leo A. Mattes
William A. Lusk	Solomon Miller
Frank P. McNamara	J. L. Moore
William L. Pearson	V. J. Moore
Howard Rinewalt	Leigh A. Paine
James Robert Roddick	Thomas Orde Smith
Starr A. Warson	Robert M. Stevenson
Horace H. Ainslie	Ralph A. Tomasco
Frederick Arneberg	Dolph Tuggle
Morton Bell	Wilhelm von Holt
Max Paul Boehme	George Warden
Grant Burkert	James B. Wingate
Warren Moroni Cave	Frank X. Wright
Philip A. Crosby	M. J. Wurster

Registered on Credentials

Clarence T. Abbott	Robert G. McPhee
Young J. Acton	Frank H. Meads
Charles E. Anderson	William W. Nash
W. W. Beitenmann	J. J. Nesom
Theodore W. Blasing	Henry A. Phillips
A. L. Cornwall	W. C. Reynolds
Clarence H. George	C. G. Reed
Solon G. Hall	Harry P. Rhoads
Joseph Herb	Henry S. Rider
Charles Hibner	W. A. Robinson
Frank Horgan	Gustav A. Schmidt
Fred Hooker Jones	George F. Schreyer
Joseph M. Keim	Henry U. Sims
C. E. Kellogg	Stephen G. Snuggs
H. Kleinhaus	H. H. Sutherland
Isaac B. Littell	Arthur Trudel
B. C. Loury	George F. Woodland
M. M. Maybury	Thomas J. Wright
Cornelius J. McCoy	William Joseph Zelner
Harry D. McKevitt	Oliver C. Willson
Richard A. McNally	

Assistants

Ray B. Graves	Phil E. Maas
Harold A. Babcock	Percy E. Mackey
Wm. M. Cardivenuis	Frederick A. Norwood
Perry LeRoy Fallis	Otto H. Poehlmann
Ross Harvey	Theodore J. Wiget
Willis L. Masten	Eugene W. Avery
G. J. Robert	Reuben C. Bergevin
C. Bruce Warner	William Boeling
Stanley Burr	F. E. Hartzell
Everett J. Emerald	Harry Herold
Alfred H. Heying	E. Louis James
Urban J. Hoult	Richard M. Salter

California College of Pharmacy

The quarterly examinations were recently completed, and all gave a sigh of relief.

The Junior dance given at the college Friday evening, February 21st, was a great success. The Juniors spared neither time nor expense to make the event one long to be remembered. The decorations were elaborate, the colors of the University, blue and gold, predominating. The programme and music left nothing to be desired. About one hundred and fifty young people will not soon forget the pleasant evening they spent with the jolly class of '09.

The patrons and patronesses were: Professor and Mrs. Green, Dr. and Mrs. Schneider, Dr. and Mrs. Simmons, Mr. and Mrs. Robert Lorentz. The committee in charge consisted of Messrs. Johnson, Koms-thoeft, Maas, and Heying. Mr. Robert Lorentz, Jr., acted as floor manager. The social event was a success from first to last, and the Junior Class deserves congratulations.

The Botany Class recently enjoyed a visit to the propagating garden and conservatory in Golden Gate Park. It is planned to take a stroll on the sand dunes in the near future, and also to take a trip to the botanical gardens in Berkeley.

Hynson, Westcott & Co., of Baltimore, send out to their patrons, present and prospective, a neat little four-page folder, giving the personnel of the house, and an enumeration of the different departments. It is interesting to note the policy of the firm as set forth in the four articles of their faith (and practice) here given:

Our Policy

1st. The rigid exclusion of all irrelevant so-called side-lines; including soda water, cigars, candy, toys, etc.

2d. The condemnation, non-advertisement and non-sale of nostrums, preventive appliances, abortifacients, and the more careful restriction of the sale of habit-forming drugs.

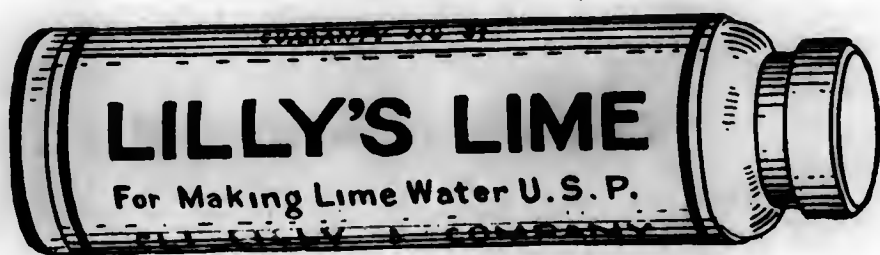
3d. The careful, conscientious and intelligent selection, preparation and examination of medicines, regardless of the cost or trouble required to procure or prepare them.

4th. The laying of such equitable and just charges as will make it possible to treat all patrons fairly, while insuring sufficient revenue to allow a proper and consistent conduct of the business.

Drug News

An Easy and Rapid Method of Making an Official Lime Water

It is inconceivable that any druggist would intentionally make lime water under strength, yet drug inspectors have found many lime waters which were too weak. The pharmacist should remember that lime water is a solution of calcium hydrate $\text{Ca}(\text{OH}_2)$, an unstable preparation which is quickly altered by the absorption of carbon dioxide, which is always in the atmosphere to a greater or less extent. The atmospheric CO_2 is absorbed by the lime water, changing the calcium hydrate to calcium carbonate (CaCO_3) which, being insoluble, is thrown down. Thus the lime water constantly loses strength unless there is an excess of calcium hydrate in the bottom of the container to replenish. The lime water tablet which is so convenient for making lime water is very unreliable, because the calcium oxide of which it is composed, when fresh, is gradually changed to calcium carbonate through exposure to the atmosphere, and lime waters prepared from the tablets are rarely full strength, even when first made. The pharmacopœial process of making lime water from ordinary unslaked lime is tedious and laborious. Eli Lilly & Co. are now supplying an especially prepared calcium oxide powder, free from impurities present in ordinary lime and of a physical condition favoring immediate hydration and rapid solution.



This is a fine powder in hermetically sealed vials. Each vial contains a quantity sufficient to make one gallon of lime water of strictly U. S. P. strength, by following directions. By using Lilly's Lime no decanting is necessary, and an official lime water can be prepared in one-half hour's time, as against twenty-four hours required using ordinary lime. Lime water so prepared has been submitted to inspectors, who have found it meeting Federal and

State requirements. Ordinarily it is better not to make a larger quantity of lime water than can be used in a reasonable length of time, and it is important that the excess of lime be left in the bottom of the stock bottle to supply deficiency caused by the formation of calcium carbonate described above.

The fruit-growers of California are likely to secure important modifications of the order of the Department of Agriculture issued some months ago restricting the use of sulphur in the drying of fruits. Promises were given to a number of the California Congressmen today that action would soon be taken that the department felt sure would be satisfactory to the fruit-growers, although the department was not yet prepared to announce definitely its character.

Ever since the promulgation of the famous circular fixing the quantity of sulphur allowable in dried fruits by the Agricultural Department there has been a continuous flood of objections and protests, not only from fruit men and the sugar men, who were affected on account of the presence of sulphur in molasses, but from manufacturers of preserves, pickles and many other food products, who were prohibited from using benzoate of soda.

Congressmen from various States interested in the industries affected, and especially those from California, led by Needham and Hayes, have almost camped with the Pure Food Board—Wiley, McCabe and Dunlap—demanding some relief from the decision fixing the quantity of sulphur at a figure which fruit men declared to be impracticable. Dr. Wiley finally announced that the fruit men could meet the difficulty by using steam coils and evaporating their fruits, but this substitution for the dry air and sunshine of California did not appeal to them.

Finally the Congressmen declared that if the matter was to be left to one member of the board, Wiley and the other members would not exercise their right to have a voice in the matter, Congress would be asked to take action.

Pure Ether for Anæsthesia

The Government permission to employ, by Act of Congress, which became effective September 1, 1907, denatured alcohol in the manufacture of ether has materially reduced the cost of this important article.

The Powers - Weightman - Rosengarten Company offer in their current list, at the lower price, their well-known ether—U. S. P., especially prepared for anæsthesia, and meeting the exacting requirements of surgical operations.

Its potency and uniformity are properties satisfactory alike to the patient and practitioner, and the increased employment of this brand by physicians and hospitals of all schools is evidence of its purity and excellence.

All jobbers are in position to supply this make at lowest ruling prices.

Mr. E. L. Baldwin, president of the Ferry Drug Company, and chairman of the committee of retail druggists for raising funds to fight the plague, reports progress in the work. It is the aim of the retail druggists of San Francisco to contribute \$5,000 to help carry out effectively the sanitary work now in progress.

The committee reported March 1st that \$700 had been contributed, and that it was hopeful of raising the entire amount in the near future. This is a very commendable showing, and the retail druggists are deserving of much credit for the interest they take in the public welfare. Those who realize the importance of this sanitary work to the city, and incidentally to their business, do not hesitate a moment in contributing their mite. It is much to be desired that all contribute, and the burden will not be so heavy to bear.

J. H. Keeleghan, representing the American Apothecary Company of New York, is calling upon the drug trade in San Francisco and the bay cities.

W. S. Pierce, proprietor of the Interbay Pharmacy, 1500 Grand Boulevard, Seattle, has invented a new explosive, which, if it possesses all the advantages credited to it, will enable the originator to put the Dupont powder trust to rout. The invention is said to be the most important advance in powder manufacturing since Maxim in-

vented the high explosive known as Maximite, which is now in limited use in the British navy. Pierce has obtained a patent which was mailed from Washington Tuesday.

The new explosive, according to Pierce, can be made 30 per cent stronger than what is known as 60 per cent dynamite, which is the most powerful explosive now manufactured, with the exception of pure nitroglycerin. Its greatest advantage, however, is the safety with which it can be handled.

According to Pierce, his powder is smokeless. It leaves no noxious gases, which have so often resulted in the suffocation of men in the bottom of a shaft. It is not poisonous, and can be swallowed without any ill result. It is not subject to atmospheric changes, and is ignited by a detonating cap or an electric spark. Unlike dynamite, when ignited in the open air, it will not explode, but simply burst into flame. It can be manufactured much cheaper than the dynamite now in use.

Pierce is an able chemist. He has studied under E. E. Squibb of New York and several other of the most noted chemists in the country. He has been at work fifteen years in perfecting his invention.

Discouraged by Congress and unable to secure promises of aid from the Board of Food and Drug Inspection, benzoate users sought aid from the President after enlisting on their side the ever-responsive Congressman, "Jim" Sherman, chairman of the Republican Congressional Campaign Committee. The decision to appeal to the President was not arrived at until every other resource had been exhausted. The benzoate people have done all they could to convince Dr. Wiley and then to induce the other members of the board to relent. They have worked hard to detach the other two members from Dr. Wiley and they have done their best to make an impression upon Secretary Wilson.

Arno Oldberg, son of Dr. Oscar Oldberg of the Northwestern University, has written a dramatic overture, which is very highly complimented by the Chicago press. After a public rehearsal of the Thomas Orchestra, in Orchestra Hall, Mr. Oldberg was called out by the audience three times. He promises to be as famous in the musical world as his father is in the pharmaceutical.

Personals

W. A. Caperton Made Manager Traveling Service Eli Lilly & Co



Eli Lilly & Co. announce the promotion of Mr. W. A. Caperton to the position of manager of the traveling service. Mr. Caperton was reared and educated in Texas; he entered a retail drug store as a boy of thirteen and has been engaged in the pharmaceutical business ever since. His first connection with Eli Lilly & Co. was in the capacity of traveling salesman in Texas, where his success was so marked that he was given the management of Lilly's New Orleans branch. In 1906, he was transferred to the home office in Indianapolis, where until now he has been acting as assistant in the management of the traveling service. As manager of this, he will have complete direction of all Lilly salesmen throughout the United States. Mr. Caperton is a thorough-going pharmaceutical man by education and business experience, and is widely acquainted in the drug trade. He has had splendid training for his new position and brings to it abundant energy and ability. His engaging personality, tact and enthusiasm make him very successful in leading and directing salesmen.

We note with no little satisfaction that J. H. Topley, the well-known pharmacist, has just been elected for the fifth time as a school director of the city of Vallejo by the highest vote polled by any candidate for any office. We have known Mr. Topley for about thirty-five years, and can testify that he is worthy of the good opinion and confidence shown in him by the votes of his fellow townsmen.

Six dollars was the extent of the haul made recently by a burglar who broke into the R. E. Goggins drug store on J Street, Sacramento. The burglar got into the drug store through a rear window and went through the desks and drawers, where he thought money was likely to be secreted. The money was taken from the cash register.

D. Alverson, proprietor of the Alverson Drug Company, Bellingham, Wash., was suddenly stricken with paralysis and is in a serious condition. As this is the first time Mr. Alverson has been attacked by the disease, his physician has hopes of his recovery. Mr. Alverson's whole right side is paralyzed. He has been in the drug business in Bellingham for many years.

Harry Jackson has bought the Ukiah drug store of T. J. Weldo and will be ready to do business in a few days. He has sent to the city for a druggist and will carry a full line of stationery and toilet articles, and expects to put in a line of groceries and notions later. Mr. Jackson is well known in Ukiah and will conduct the business in a manner that will justify the people in patronizing him.

The six drug stores in Riverside have decided that, beginning next Sunday, they will close their stores for the whole day and that only one shall keep open to supply the demands of the trade. The system agreed upon is that they will take turns, according to alphabetical arrangements, and so next Sunday there will be only one drug store open for business. This is done so that the clerks may have one day off each week.

One of the finest stocks of drugs carried in Nevada may be found at the Rees Phar-

macy, Fallon. A registered pharmacist attends to all prescription orders and in connection with the store a modern laboratory has been installed for the purpose of manufacturing preparations for the store and outside trade.

To the Commodore Drug Company belongs the credit of being the first firm in Sparks, Nev., to begin an active canvass of the State for wholesale trade. Dr. Seaton, the first of the Commodore Company's staff of traveling men, left recently on his maiden trip for the company. His first trip will be a long one, and he will cover a large territory until other routes are established by the firm. The Commodore Company is to be commended for its courage and enterprise and the result of the effort will be an interesting matter, for should it be a successful venture it is to be hoped that others will follow the example.

The Owl Drug Company closed both of their Los Angeles stores on a recent Sunday morning between 10 and 12 o'clock, and called all their employes together to discuss the new food and drug law, which recently went into effect.

The provisions of the law, as it applied to drug stores, was explained at length to the employes, and it was impressed upon them that it must be lived up to in letter and spirit. Under the law the contents of every package must be set forth on the label plainly, and in all cases where the labels are misleading they will be changed. All employes of the company were instructed to give customers any information they may desire regarding the goods sold, and in all respects to comply with the law.

The Owl Drug Company believes that this law is not only a good one for the public generally, but will eventually work for the good of the druggists themselves. The meeting Sunday was to enable the employes to become thoroughly familiar with its requirements. Between fifty and sixty people were present.

G. A. Lewis, deputy for the California State Board of Pharmacy, has begun a crusade against the patent medicine dealers of Los Angeles, many of whom are alleged to be operating without a license.

A pure milk crusade is to be conducted by the civic and social science sections of the California Club, which has already taken the preliminary steps by sending

samples of milk from five different dairies to a laboratory. The report shows that while some of the milk is fair in quality, other samples were just on the verge of being unfit for use.

William Keller of Santa Rosa passed a splendid examination with honors recently before the State Board of Pharmacy in San Francisco, and has now received his diploma.

Defective electric light wiring caused a fire to break out early Sunday morning in the ceiling of Wolfe's drug store at Fourth and D Streets, San Rafael, and before the fire department could arrive upon the scene had burned its way until the entire building was ablaze. The loss is estimated at about \$3,500, a small portion of which is covered by insurance.

The Red Cross Pharmacy is to be the name of the new drug store soon to be opened in one of the rooms of the Brophy building, Douglas, Ariz. The proprietors are Dr. L. R. Brown and T. A. Whitehead, and the manager of the store Albert Beyersdorfer.

Lee Roy Lee, the Adin druggist, has been seriously ill with appendicitis. We are glad to learn that he is rapidly recovering.

The Prosser Pharmacy, at the corner of Santa Clara Avenue and Park Streets, Alameda, has been purchased by C. H. Conrad of Oakland.

George Heinrich Voss, the popular senior partner of the Owl Drug Store, Lakeport, recently made his final abjuration of allegiance to his Majesty, King Edward VII of England, and vowed to be a good citizen of the United States. He was formerly a resident of Montreal, Canada.

The drug trade appears to be growing in Salt Lake. Five new drug stores have been started in that city since the first of the year, and all seem to be doing well. Drug stores in Butte and elsewhere in Montana have got into the desirable habit of patronizing Salt Lake wholesale houses, showing that the jobbing trade of that city is reaching out.

The Coombs Drug Company of Salt Lake City, Utah, with a capital stock of \$10,000 and shares at \$100 each, filed articles of incorporation, with C. C. Snyder, president; W. R. Tyndale, vice-president; Harry Coombs, secretary and treasurer.

E. J. H. Nicholson of Tehachapi and Miss Anna V. B. Roach of Washington, D. C., were quietly united in marriage at the home of Mr. and Mrs. Newell at Bakersfield, the Rev. E. R. Fuller officiating. Our hearty congratulations to the happy couple.

F. C. Pressell, representing the Langley & Michaels Company in Nevada, with headquarters in Reno, was recently a visitor at the home office, bringing in a big batch of orders.

Mr. Colpe and wife of Stockton are taking in the sights of San Francisco.

David Kaplansky, representing Eli Lilly & Co., made a flying visit to Los Angeles, calling on the trade in the San Joaquin Valley. He reports business in a flourishing condition in the valley.

Mr. Lubosch and wife of the Lion Drug Company of Stockton was in this city for a week. He was greatly astonished at the remarkable rehabilitation of our city.

Mr. Hereth, formerly of the Hereth & Searle Co., Chicago, has severed his connection with that firm, taking a position in the scientific department of Eli Lilly & Co., left vacant by the resignation of Mr. J. B. W. Woolsey.

Mr. J. H. Lilly, president of the Eli Lilly Company, Indianapolis, is taking a much-needed vacation in Florida.

W. J. Hudson of the Hardman Drug Company, Riverside, passed a successful examination recently before the State Board of Pharmacy in Los Angeles.

Dr. Hector Kalliwoda, proprietor of a drug store at Beaudry and Temple Streets, Los Angeles, was fined \$10 for selling liquor without a license by Police Judge Frederickson.

The testimony showed that Dr. Kalliwoda had violated the law through ignorance. Policeman Wyatt, accompanied by Policeman Beaumont, entered the drug store, declared he was faint and asked for whisky, which was given him, whereupon Policeman Beaumont arrested the druggist.

Police Judge Frederickson declared he did not approve the trick played on the defendant, but under the circumstances he was compelled to find him guilty.

G. W. Blakeley, of the Oregon State Board of Pharmacy, is making a tour of Western Oregon, gathering evidence as to violation of the pharmacy law. He says that many drug stores are being conducted in violation of the statute, and that prosecutions will be brought unless the offenses cease. He is now at Corvallis, where it is

said the druggists have become a trifle careless.

By a decision rendered by Judge Van Fleet in the United States Circuit Court the San Francisco Board of Health is restrained from compelling druggists to place poison labels on all bottles containing Liquozone.

Fulton's Pharmacy, Brawley, expects to open by March 15. Mission style fittings will be used throughout, and the drug store will be one of the prettiest in Southern California. Mr. Fulton is at present with S. W. Dunaway at El Centro, while waiting for the building to be constructed.

Dr. Fred Grazer, formerly employed in the Mariposa Drug Store, but who has been absent in San Francisco for the past six weeks on account of illness, has returned to Mariposa and resumed his duties at the old stand. His return to Mariposa is welcomed by all.

"Happy Don" McCreay expects to open his new drug store on C Street, Marshfield, Or., the first of next month. Good luck to you, Don.

As a result of examinations held in the Whatcom County Courthouse at Bellingham by the Washington State Board of Pharmacy January 20, 21 and 22, certificates as registered pharmacists have been issued to twenty-four aspirants out of forty-one who took the examinations.

H. Morris of Napa has gone to Sutter Creek for a two weeks' stay. Wonder what is the magnet that draws him there?

Thos. A. Whitehead, the cattleman and rancher, who has many old-time friends and acquaintances in the Chiricahuas, has embarked in the drug business in Douglas, Ariz., with his brother-in-law, Dr. L. W. Brown, the dentist of that city. Great combination.

Ernest E. Elliott, pioneer druggist of St. John, Or., died at Myrtle Park recently after a three days' illness. He is survived by a wife and two children. Mr. Elliott was 45 years old and established the first drug store in St. John. Two years ago his place of business was destroyed by fire and he removed to Myrtle Park, where he was attacked by pneumonia, to which he succumbed.

Ross King, formerly of Cottage Grove, will open a drug store in Corvallis, Wash., in the Hotel Waters building. The establishment will carry no side lines, but will be an exclusively up-to-date pharmacy.



Thieves seem to have the impression that drug stores are mints on a small scale, as quite a number of drug stores have been robbed. Unfortunately (for the burglars) they secured very little for their trouble. The last place to be entered was the White Cross Drug Store in Alameda, where they stole \$27 in cash and \$1 in stamps.

Mr. A. Friedenthal of the Sun Drug Company at Riverside passed a successful examination before the State Board of Pharmacists.

Mr. F. H. Hainert, representing the Digesto Company, is covering California in the interest of this product. Mr. Hainert is a gentleman with exceptional ability as a salesman, and of pleasing personality, which is winning him many friends among the California druggists "Digesto and Hainert" is a combination hard to beat.

O. J. Hull and H. E. Thompson are preparing to build a very handsome building at Marcola, Ore., for the purpose of conducting a strictly high-class pharmacy.

J. Barnes is opening a drug store at Carlton, Ore., and it promises to be one of the best pharmacies in that part of the State.

Mr. Athow is opening up a new store at White Bluffs, Washington.

E. R. Applegate of Drain, Ore., one of the very best known men in that section of the State, is up as a candidate for the Oregon Legislature. We hope he will be elected, because a man who closely watches his own business will certainly watch the interest of his constituents, and the voters will make no mistake in voting for him should he receive the nomination.

C. Conrada is preparing to open up his new store at Hyde and California Streets.

Theo. Bradley, representing the Langley & Michaels Co., reports a rushing business in the Coos Bay territory.

R. R. Zane, general Western representative of Eli Lilly & Co., is gladdening the hearts of the jobbers in Sacramento, Seattle, Spokane, and Portland by calling on them.

W. P. Smith is working Oregon territory for the Langley & Michaels Co., and the business in that territory shows a flattering increase.

Hemet, Cal., will soon have an up-to-date pharmacy.

Dusy & Sawrie of Selma have purchased the James Porteous lot on Second Street, where, within the next twelve months, they expect to erect a modern drug store building. Their success is due to their reliability.

Mr. C. Ballagh, the well-known manager of the Kern Drug Company, was recently married to Miss Myrtle Hursh, an exceedingly beautiful and popular young lady of Selma. Our congratulations to the happy couple. May they live long and prosper.

Mr. G. Sherman, formerly a druggist of Tomales, recently died at his home in Oakland. Our sympathy is extended to the bereaved family.

A. S. Musante, Ph. G. (C. C. P.), '03, M. D. (U. C.), '06, is resident physician in the Mater Misericordiae Hospital, Sacramento. He reports that he has plenty of work and that it is appreciated. His only regret is that he is not able to see more of his Alma Mater and its activities.

Dr. M. C. Billings has sold the Rialto Pharmacy, Rialto, to H. La Brier of San Bernardino, who was formerly connected with the Central Drug Store, San Bernardino.

George W. Gilkey will shortly open a swell pharmacy on Grand Boulevard, Glendale, and will call it "Miradero Pharmacy."

Miss Philomena M. Nolan, Ph. C., C. C. P., '06, and Dr. Emanuel Goodman were married on Sunday, the 8th instant. We take pleasure in chronicling such a happy outcome of a business partnership. May the new venture prove even more successful than the first one—a tide in the affairs of both parties that shall lead to the best kind of fortune.

S. A. McDonnell, the veteran pharmacist, not satisfied to have all his eggs in one basket, is preparing to open a new store at the southeast corner of Powell and Geary Streets as soon as the building is completed. The present store on Fillmore Street will be continued.

The Owl Drug Co. has opened another new store on Market Street, opposite Third.

Mr. A. O. Schmidt, for many years at Fulton and Baker Streets, has again started in business, this time in the Visitacion Valley.

At a meeting of the Santa Barbara druggists held recently, it was decided that the actual cost of delivery of packages purchased in the local pharmacies after 6 o'clock p. m. would be charged against the purchaser.

H. M. Allen has purchased the Monnette Pharmacy, King City, and will continue to conduct it as a first-class pharmacy.

A. D. Walsh Company Corporate

The A. D. Walsh Company have incorporated for conducting the business of the Pioneer Drug Store at Redwood City. The officers are A. D. Walsh, Ph. G., president; O. A. Comper, vice-president, and W. H. V. King, Ph. G., secretary. They have all been connected with the business for ten years or more.

A. D. Walsh started as a clerk for Will Frisbie in 1878, and purchased the business from H. J. Finger in 1885.

Will King became connected with the business in 1888, and Oscar Comper ten years later, so this may be called an anniversary year. All are practical pharmacists and hold certificates from the State Board.



A. D. WALSH

While the compounding of physicians' prescriptions is the primary business, the firm carry a complete stock of toilet articles, stationery, cameras and photographic goods, office supplies, paints and window glass. The firm manufactures about thirty different household remedies, and also acts as agent for many of the popular specialties.

The right way to buy a drug store, to sell one, to get a position or help, either in the United States or Canada, is to write for F. V. Kniest, R. P., "Drug Store Man," Omaha, Nebraska, U. S. P. Strictly reliable, expert and confidential services.

Edwin F. Gates, popularly known as "Ned" son of James H. Gates, the pioneer south of Market druggist, died recently, after a short illness. He was associated with his father for years in their drug store at Third and Howard Streets and was well known by a great many people.

Dr. C. W. Merrill will conduct the drug store in conjunction with his practice in Bend, Oregon.

W. M. Simpson and R. G. Kraeuter have bought a new drug store in Goldfield, Nevada, and will continue to conduct it as a first-class pharmacy.

C. F. Michaels of the Langley & Michaels Company, with his wife, is en route for a pleasure trip in the Orient.

Mr. J. Jennings, formerly with the Bay Shore Pharmacy, is preparing to open a first-class drug store on Schwerin Street, Visitacion Valley. Mr. Jennings needs no introduction to the people of Visitacion. His many friends wish him success in his new enterprise.

Leroy Lee of Adin was operated on recently for appendicitis. His friends wish him a speedy recovery.

Wanted—A young physician who is also a licensed pharmacist, to locate in one of the best towns in the Sacramento Valley, to buy out a small drug store that has been closed since the death of the owner. Stock will invoice about \$500. Can be bought very reasonable. No doctor or druggist in town. Address Balfour & Garrtette, Woodland, Cal.

Wanted—A position by an experienced pharmacist, as head clerk or manager; registered in California, Washington, Oregon, and Nevada. Reference given. Address Robt. Williams, Stockton, Cal.

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Cartons, Etc.

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**Pharmaceuticals and Pharmaceutical
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Buyer's Label Goods

And any Druggist who desires to put his push and energy
 back of *his own* specialties, and who wants in every
 package, conscience-quality, and on every label
 that taste and neatness that half sell
 the goods, should write for
 labels and prices to

HENRY K. WAMPOLE & COMPANY

(INCORPORATED)

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Manufacturing Chemists

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ALKALOID

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STANDARD MEDICINAL BRANDS

for three-quarters of a century and
 the favorite makes with many

TRAPPERS and RANCHMEN

CODEINE

ALKALOID

== AND ==

SULPHATE

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AS TO PURITY AND SOLUBILITY

and in all respects
 indicated for

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COMPLETE LIST ON REQUEST.

SPECIFY P-W-R ON YOUR ORDERS

PRICE LIST OF DRUGS, CHEMICALS, ETC.

These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

The Market

Iodides and bismuths furnish the most important changes of the past month, both iodide of potash and subnitrate of bismuth having declined twenty-five cents per pound. Citrates are lower, citric acid the most noticeably.

Morphine, opium and quinine remain firm, in spite of the approaching close of the season of greatest demand for the latter. However, for this reason it is safe to predict that there will be no advance for some little time.

The drug trade as a whole has suffered less than any other line of business from the prevailing stagnation of trade. Imports continue as large as usual, and dealers are optimistic as to the future.

PRICE CHANGES

Advanced	Declined
Bark soap	Acid citric
Cantharides	Citrates
Lunar caustic	Bismuth
Silver nitrate	Blue vitriol
Oil spearmint	Iodides
Oil wormwood	Menthol
Seed quince	Santonin
	Sodium benzoate
	" citrate

ACETANILID, N. Y. Q., 1-lb. cart. incl....lb	37
Powdr., N. Y. Q., 1-lb cart. incl.....lb	37
ACETONE. Technical.....lb	45
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....	21
5-lb bottles, ".....lb	15
Glacial, M. C. W. lb	44
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure.....lb	14

Arsenous, Lumps, Pure	lb	24
Arsenous, Powd., Pure, M. C. W.....	lb	24
Benzoic, from Toluol, M.C.W., 1-lb cart. incl	lb	57
Benzoic, from Toluol, M. C. W.....	oz	13
Benzoic, True from Benzoin.....	lb 1 35-1	50
Benzoic, from Toluene, 1-oz. cartons....	oz	13
Benzoic, from Toluene, M. C. W.....	lb	55-65
Boracic	lb	16-18
Boracic, powd., M. C. W.....	lb	18
Boracic, im. powd., M.C.W., 1-lb cart. incl.	lb	27
Boracic, Squibb's, 1-lb bottle.....	lb	45
Boric, H. P.	lb	27
Boric, powd., pure	lb	20
Boric, Impalp., powd.	lb	27
Butyric, 100%	oz	29
Butyric, H. P.	lb	2 14
Cacodylic, 1/8	oz	4 00
Camphoric	oz	40
Carbolic, Calvert's No. 1.....	lb	2 00
Carbolic, Calvert's No. 2.....	lb	1 50
Carbolic, 1-lb tin, M.C.W., gilt label....	lb	28
Carbolic, M.C.W., 5-lb can, gilt label....	lb	25
Carbolic, M.C.W., 10-lb can, gilt label....	lb	24
Carbolic, M.C.W., 25-lb can, gilt label....	lb	22
Carbolic, Loose, crys.	lb	70
Carbolic, Solution, 1-lb. bot.....	doz	2 50
Carbolic, Crude	gal	40-50
Chromic, 1-oz vials	oz	15
Chrysophanic, true, M. C. W., 1-oz vials..	oz	39
Cinnamic	oz	39
Citric, crys., P. W. R.....	lb	53-55
Gallic, 1-oz cartons	oz	11
Gallic	lb	70
Hydrobromic, conc., 1-oz vials, M.C.W....	oz	15
Hydrobromic, U. S. P., 10%, M.C.W.....	lb	34
Hydrocyanic, 1-oz vials, U.S.P., M.C.W....	oz	10
Hydriodic (Sp. gr. 1.50).....	oz	42
Hydriodic (Sp. gr. 1.70).....	oz	52
Hydrocyanic, U. S. P., Mallinckrodt's....	lb	39
Hydrocyanic, U. S. P., Scheele's.....	oz	35
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..	lb	1 30
Hydrofluoric, 1/2s, g. p. bots. incl. " ..	lb	1 80
Hydrofluoric, 1/4s, g. p. bots. incl. " ..	lb	2 25
Hydrofluoric, 1-oz g. p. bots. incl. " ..	lb	37
Hypophosphorous, 50%, 1-lb G. S. B. " ..	lb	1 24
Hypophosphorous, 50%, 1-oz G. S. B. " ..	oz	19
Lactic, conc., 1-oz vials, M. C. W.....	oz	12
Lactic, conc., 1s	lb	79
Lactic, dilute, 1-oz vials, M. C. W.....	oz	8
Muriatic, carboys	lb	3 1/4
Muriatic, 6-lb bots.....	each	75
Muriatic, C. P., 6-lb bots.....	lb	22
Muriatic, C. P., 1-lb bots.....	lb	38
Nitric, carboys.	lb	8
Nitric, 7-lb bots.....	ea	1 10
Nitric, C. P., 7-lb bots.....	lb	22
Nitric, 1-lb bots.	lb	40
Nitro-Muriatic	lb	40

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Nitrous, fuming	lb	65	Hydrated, pure, M. C. W.....	lb	79
Oxalic.	lb	14-16	Metallic, M. C. W.....	oz	17
Oxalic, chem. pure, M. C. W.....	lb	30	Sulphate, pure, M. C. W.....	lb	25-29
Phosphoric, glacial	lb	64	ALUMNOL	oz	60
Phosphoric, syrupy (85%)	lb	55	AMIDOL. 1-oz. can	oz	65
Phosphoric, diluted, M. C. W.....	lb	25	AMMONIA. Spirits of	lb	75
Phosphoric, M. C. W., U. S. P., 50%..	lb	40	Spirits of, aromatic	lb	75
Phosphoric, glacial, 1-oz vials.....	oz	11	Aqua, 26 deg., 1-lb. bot.....	lb	20
Phosphoric, glacial, 1s, M. C. W.....	lb	64	Aqua, 26 deg., 4-lb bot.....	lb	16
Picric	lb	60-70	Aqua, 26 deg., 5 gal. can.....	lb	11
Pyrogallic, Resublimated, M. C. W.....	oz	27	Aqua, 26 deg., carboy.....	lb	9½
Pyrogallic, 1-lb cans, W. C. W.....	lb	2 35	Aqua, Washing, 5-gal. can.....	gal	50
Pyrogallic, ½-lb cans, M. C. W.....	lb	2 45	AMMONIUM. Acetate, cryst., M. C. W...oz		14
Pyrogallic, ¼-lb cans, M. C. W.....	lb	2 55	Arsenate, 1-oz vials, M. C. W.....oz		22
Pyroligneous	gal	40	Benzoate, 1-oz vials, M. C. W.....oz		14
Salicylic, 1-lb cartons	lb	46	Benzoate, M. C. W.	lb	1 14
Salicylic, from Oil Wintergreen.....oz		44	Bichromate, 1-oz vials, M. C. W.....oz		14
Salicylic, Amorph.	lb	46	Bromide, 1-oz vials, M. C. W.....oz		10
Succinic, oz bottles	oz	74	Bromide, M. C. W.....	lb	34
Sulphuric, Aromatic	lb	75	Carbonate.	lb	15-18
Sulphuric, carboys	lb	2-2¼	Carbonate, powdered	lb	20
Sulphuric, 9-lb bottles	each	1 00	Chloride, see "Muriate."		
Sulphuric, C. P., 9-lb. bottles.....	lb	22	Citrate, 1-oz. vials, M. C. W.....oz		15
Sulphuric, C. P., 1-lb bottles.....	lb	38	Hypophosphite, 1-oz vials, M. C. W.....oz		21
Sulphurous, U. S. P., solution.....	lb	25	Hypophosphite, M. C. W.	lb	1 70
Tannic, U. S. P., M. C. W.....	lb	85-90	Iodide, 1-oz. vials, M. C. W.....oz		38
Tannic, P. W. R.....	lb	1 15	Muriate, lump.	lb	14-16
Tartaric, crystallized	lb	38-44	Muriate, gran.	lb	10-12
Tartaric, powdered	lb	38-44	Muriate, gran., pure, 1-lb cartons.....	lb	20
Tri-chlor-acetic	oz	32	Muriate, powdered, pure.....	lb	19
Valerianic	oz	20	Muriate, Po.	lb	17
ACONITINE. Amorphous	dr	1 40	Muriate, Po., Squibb's	lb	35
Cryst.	dr	1 40	Nitrate	lb	44
ADAPES LANAE. B. P.	lb	35	Oxalate	lb	52
AGARIC. White.	lb	45	Phosphate	lb	84
ALBOLINE.	lb	50	Salicylate	lb	1 10
5-lbs	lb	45	Salicylate	oz	13
Liquid	lb	50	Succinate	oz	1 00
Liquid, 5-lbs	lb	45	Sulphate, com'l	lb	12
AGURIN	oz	1 70	Sulphate, C. P.	oz	29
ALBUMEN. Egg.	lb	1 45	Sulpho Cyanate, pure	oz	10
ALCOHOL. Absolute.	qt	1 00	Valerianate, cryst., 1-oz vials.....oz		24
94%, 10-gal, case	gal	2 93	Valerianate, cryst.	lb	1 75
94%, 5-gal. case	gal	2 98	AMMONOL	oz	1 05
Denatured, 5-gal. can.....	gal	70	AMYL. Acetate	lb	79
Wood, 5-gal. case.	gal	75	Butyrate, M. C. W.	oz	30
Wood, Columbian Spirits, 5 gal. in case.gal		1 02	Nitrite	oz	29
Wood, Columbian Spirits, barrels.....gal		85	Valerianate, M. C. W.	lb	2 59
Wood, Columbian Spirits, ½ barrels....gal		95	ANNATTO. Roll	lb	60
Cologne Spirits, 5 cents advance over price of			ANODYNE. Hoffman's, 1-lb bottle.....	lb	75
Alcohol.			ANTHRASOL	oz	60
ALDEHYDE. Conct.	oz	25	ANTIFEBRIN	oz	17
ALLSPICE.	lb	17	ANTI-KAMNIA and its combinations.....oz		1 00
Powdered	lb	20	10-oz lots for \$9.25; 25-oz for \$22.80		
ALMOND MEAL.	lb	45	Tablets, Vest Pocket	doz	1 75
ALMONDS. Bitter, shelled.	lb	45	Tablets, Vest Pocket, 1 gross, 5% off.		
Sweet, shelled.	lb	45	ANTIMONY. Black, powdered, pure.....	lb	15
ALOIN. 1-oz vials	oz	16	Black, powdered, commercial	lb	10
ALUM. Ammonio-Ferric, M. C. W.	lb	34	Chloride, cryst., 1-oz vials.....oz		22
Chrome	lb	21	Chloride, sol. (Butter of)	lb	39
Burnt	lb	15	Oxysulphuret (Kermes Mineral)	lb	1 00
Ground	lb	7-9	Potassium Tartrate, M. C. W.....	lb	45
Lump.	lb	5-8	Sulphuret, precipitated	lb	92
Powdered.	lb	7-9	ANTINOSINE	oz	2 10
ALUMINUM. Aceto-Tartrate, M. C. W...oz		20	ANTI-PYRIN. Knorr's	oz	35
Bromide, M. C. W.....	oz	29	New	oz	25
Chloride, M. C. W.....	lb	79	APIOL. Fluid Green	oz	37
Chloride, M. C. W.....	oz	14			

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APOLSYIN. S. & G. oz	65	Canella, powdered lb	35
APOMORPHINE. Hydrochlor. Am or.,		Cascara, Sagrada. lb	18
1/8-oz vial oz	3 50	Cascara, Sagrada, powdered. lb	20
Mur. cryst. oz	8 50	Cascarilla lb	25
Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	4 00	Cascarilla, powdered lb	30
ARISTOL oz	1 80	Cassia. lb	22
ARGOLS. Red lb	15	Cassia, powdered lb	25
Red, powdered lb	20	Cinchona, red. lb	45-50
ARGYROL oz	1 50	Cinchona, red powdered. lb	45-50
ARROWROOT. St. Vincent.....lb	18-20	Cinnamon, Ceylon. lb	40 50
Taylor's Bermuda, 1/4s and 1/2s.....lb	35	Cinnamon, Ceylon, powdered. lb	40-50
Taylor's Bermuda, bulk lb	35	Cotton Root, powdered. lb	35
ARSENIC. Bromide, 1-oz vials, M. C. W.oz	27	Cotton Root, pressed, 1-lb.....lb	35
Chloride, sol., M. C. W.....lb	30	Cramp, powdered lb	25
Iodide, 1-oz vials, M. C. W.....oz	44	Cramp, pressed, 1-lb lb	25
Metallic lb	45	Cundurango lb	45
Red, powdered lb	15	Cundurango, powdered lb	50
Solution (Donovan's) lb	40	Dogwood, pressed, 1-lb.....lb	20
Solution (Fowler's) lb	30	Dogwood, powdered lb	25
Sulphured, red powdered lb	33	Elder, pressed, 1-lb.....lb	35
Sulphured, yellow powdered lb	33	Elm, select, slabs. lb	30
White, lump lb	30	Elm, ground, bulk lb	30
White, powdered, commercial lb	15	Elm, powdered lb	30
Yellow (orpiment) lb	35	Elm, powdered, 1/4s.....lb	30
ASBESTOS. Fibrous, gro.....lb	20	Elm, powdered, 1/2s.....lb	35
ASPARAGIN. 1/8-oz vials oz	1 50	Elm, powdered, ozs.....lb	40
ASPIRIN oz	43	Hemlock, pressed, 1-lb. lb	25
ATROPIA. Pure, 1/8-oz vials oz	7 35	Hemlock, powdered. lb	30
Sulphate, 1/8-oz vials oz	6 25	Jamaica Dogwood, pressed, 1-lb.....lb	35
BALSAM. Copaiba, 8-lb can lb	75	Jamaica Dogwood, powdered, 1-lb.....lb	35
Copaiba, 5-lb bottle.....lb	80	Mezereon, pressed, 1-lb.....lb	28
Copaiba, 1-lb bottle.....lb	95	Oak, red, pressed, 1-lb.....lb	22
Copaiba, solidified lb	1 25	Oak, white, powdered. lb	22
Fir, Canada lb	75-80	Oak, white, pressed, 1-lb.....lb	22
Fir, Oregon. lb	50-55	Poplar, white, powdered, 1-lb.....lb	25
Gurgun lb	40	Poplar, white, pressed, 1-lb lb	25
Peru lb	3 25	Poplar, yellow, pressed, 1-lb.....lb	25
Sulphur lb	60	Prickly Ash, powdered lb	40
Tolu lb	65	Prickly Ash, pressed, 1-lb.....lb	33
BARIUM. Acetate, 1-oz vials, M. C. W...oz	16	Quebracho lb	35
Carbonate, M. C. W.....lb	37	Sassafras. lb	28
Carbonate, precip. lb	30	Sassafras, powdered lb	25
Chloride, chemically pure, M. C. W.....lb	33	Simaruba lb	50
Nitrate, M. C. W. lb	23	Soap Tree lb	10-12
Sulphide, commercial, M. C. W.....lb	43	Soap Tree, ground lb	15
Sulphide, pure, M. C. W.....lb	53	Soap Tree, powdered. lb	15
Sulphate, M. C. W. lb	13	Sumac, pressed, 1-lb.....lb	25
BARK. Alder, black, pressed, 1-lb.....lb	25	Tamarac, pressed, 1-lb lb	25
Alder, red or tag, pressed, 1-lb.....lb	24	Wahoo Root, pressed, 1-lb.....lb	33
Angostura lb	30	Wild Cherry. lb	16
Ash, black, pressed, 1-lb.....lb	20	Wild Cherry, ground. lb	18
Ash, mountain, pressed, 1-lb.....lb	24	Wild Cherry, powdered lb	20
Ash, white, pressed, 1-lb.....lb	25	BAY RUM. Domestic gal	2 25
Barberry, pressed, 1-lb.....lb	30	Imported gal	3 00
Barberry, powdered lb	35	BEANS. Calabar. lb	40
Bayberry, pressed, 1-lb. lb	25	Tonka, Angostura lb	1 35
Bayberry, powdered. lb	30	Vanilla, short, true Mexican.....lb	8 50
Birch, pressed, 1-lb.....lb	24	Vanilla, long, true Mexican.....lb	9 50
Black Haw, powdered lb	35	Vanilla, Tahiti lb	1 50
Black Haw, pressed, 1-lb.....lb	30	BEBEERINE. Pure, 1-oz vials oz	2 04
Black Willow, pressed, 1-lb.....lb	25	Sulphate, 1-oz vials oz	1 49
Blackberry. lb	20	BENZOLE. Pure lb	35
Buckthorn, pressed, 1-lb lb	25	BENZIN. Gallon gal	30
Butternut, pressed, 1-lb lb	25	5 and 10 gallons gal	25
Calisaya, yellow, commercial. lb	30	Pints doz	1 60
Calisaya, yellow, commercial, powd.....lb	32	BERBERINE. Hydrochloride oz	2 55
Calisaya, East India. lb	42	Sulphate oz	2 29
Calisaya, powdered. lb	45	BERRIES. Buckthorn lb	30
Canella lb	35	Cocculus Indicus lb	17

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Cubeb, stemless	lb	30	CALCIUM. Bromide, 1-oz vials, M. C. W. oz	12	
Cubeb, powdered	lb	30	Bromide, M. C. W. lb	64	
Elder	lb	30	Chloride, fused, M. C. W. lb	64	
Juniper, Italian	lb	10	Chloride, granular, M. C. W. lb	30	
Poke	lb	25	Glycerylphosphate	oz	22
Prickly Ash.	lb	40	Hypophosphite, 1-oz vials. oz	14	
Sumac	lb	25	Hypophosphite. lb	89	
Sumac, powdered	lb	30	Hypophosphite and Sodium, 1-oz vials. oz	16	
BETOL	lb	60	Hypophosphite and Sodium, M. C. W. lb	1 09	
BISMUTH. Acetate, M. C. W. oz	35	Iodide, 1-oz vials, M. C. W. oz	37		
Citrate, M. C. W. lb	2 89	Lactophosphate, soluble	lb	1 35	
Citrate, M. C. W. oz	25	Lactophosphate, soluble	oz	17	
Citrate and Ammonia, M. C. W. oz	26	Phosphate, precipitated, 1-lb cart. lb	20		
Citrate and Ammonia, M. C. W. lb	2 82	Phosphide, 1-oz vials	oz	50	
Lactate	oz	39	Sulphate, pure	lb	49
Metallic	lb	2 50	Sulphide, 1-oz vials	oz	10
Nitrate, M. C. W. oz	24	Sulphide	lb	37	
Oxide, Hydrated, M. C. W. lb	3 68	Sulphite	lb	84	
Oxide Hydrated, M. C. W. oz	32	Sulpho, carbolate, M. C. W. oz	11		
Oxychloride, M. C. W. lb	2 49	CALOMEL. N. Y. Q. lb	1 05		
Salicylate, 40%	oz	20	Calomel, P. W. R., 1-lb boxes. lb	1 05	
Salicylate, 64% Basic	oz	23	English, Howard's	1 35	
Salicylate, 64% M. C. W. lb	2 57	CAMPHOR. Monobromated, M. C. W. oz	24		
Subbenzoate	oz	29	Tar flake. lb	5-7	
Subcarbonate	lb	2 42	Tar balls. lb	5-7	
Subgallate	oz	23	CANDY. Coltsfoot Rock	lb	30
Subiodide, M. C. W. lb	4 00	Horehound. lb	12		
Subiodide, 1-oz vials, M. C. W. oz	34	Rock, on strings	lb	15	
Subnitrate, M. C. W. lb	2 12	Rock, brown	lb	16	
Subnitrate, N. Y. Q. lb	2 12	Rock, red	lb	15	
Subnitrate, P. W. R. lb	2 12	Rock, white	lb	14	
Tannate, 1-oz vials, M. C. W. oz	24	CANTHARIDES. Russian, powdered. lb	1 25		
Valerianate, 1/8s	oz	57	CAPSICUM. African, pods	lb	25
BLUE MASS	lb	65	African, powdered	lb	30
Powdered	lb	75	Bombay	lb	20
BLUE VITRIOL. Barrels, 6 3/4. lb	9-13	CARAMEL. gal, \$1.25. lb	25		
Powdered	lb	17	CARBON. Bisulphide	lb	30
BOLE. Armenian	lb	18	Bisulphide, 50-lb cans	ea	5 18
BONE ASH	lb	6-8	Bisulphide, Wheeler's 50-lb can. ea	5 18	
BORAX. C. P., Squibb's	lb	33	Bisulphide, 1-gal cans	gal	1 43
Pacific Coast Borax Co., 1-lb. doz	1 14	Bisulphide, quart bottles	doz	4 50	
Pacific Coast Borax Co., 3/4-lb. doz	90	CARMINE. No. 40. oz	40		
Pacific Coast Borax Co., 1/4-lb. doz	48	No. 40. lb	4 50		
Powdered	lb	8-10	CASSIA FISTULA	lb	20
Pure Granular	lb	25	CASTOR FIBER. oz	1 50	
Refined	lb	8-10	Castor Fiber, powdered	oz	1 75
BOROFORMOL. Pints	doz	7 50	CERATE. Cantharides	lb	1 00
BOROLYCEIDE Solution. lb	60	Goulard's, U. S. P. lb	70		
BROMOFORM	oz	20	Resin, U. S. P. lb	50	
BROMINE	lb	83	Savin	lb	60
Chloride, solution	oz	60	Simple	lb	50
BRUCINE. 1/8-oz vials, M. C. W. oz	1 75	Spermacti	lb	70	
BRUCINE	oz	1 75	Turner's	lb	60
Phosphate	oz	1 75	Zinc, Carbonate, true	lb	60
Sulphate, 1/8-oz vials	oz	1 75	Zinc, Oxide	lb	60
BUDS. Balm of Gilead	lb	60	CERIUM. Oxalate	oz	09
Cassia	lb	50	Oxalate, 1-lb. cartons. lb	45	
BUTTER CACAO. Ghirardelli	lb	65	CHALK. Crayons, white	lb	15
German	lb	72	French, cut	lb	18-20
CADMIUM. Bromide, M. C. W. oz	20	French, powdered	lb	5-8	
Iodide, M. C. W., 1-oz vials. oz	31	Precipitated, English	lb	10-12	
Sulphate, M. C. W., 1-oz vials. oz	25	Prepared in drops, bulk	lb	7-8	
CAFFEIN. Bromide, 1-oz vials. oz	37	Prepared in drops, 5-lb boxes. lb	8-10		
Citrated, M. C. W. oz	28	Prepared pink, 8-lb boxes. lb	10		
Citrated, N. Y. Q. oz	28	White, in lumps	lb	3-4	
Pure, N. Y. Q. oz	35	CHARCOAL. Animal	lb	8-10	
Sulphate, 1/8-oz vials, M. C. W. oz	60	Willow, powdered	lb	15-20	
Salicylate, true salt, 1/8s, M. C. W. oz	60	CHINA CLAY	lb	10	
CALAMINE	lb	18	CHINESE SHAVINGS	lb	60

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CHINOIDINE. 1-oz rolls	oz	12	Nitrate	lb	54
CHLORAL HYDRATE, CROTON, 1-oz vial			Sulphate, C. P., granulated, 1-lb. boxes...	lb	23
incl.	oz	35	Sulphate, Caustic Pencils	doz	1 75
Crystals, M. C. W., 1s.....	lb	1 35	Sulphate, purified, 1-lb cartons.....	lb	21
Crystals, M. C. W., ½s.....	lb	1 45	COPPERAS. bbls 1¼.....	lb	3-4
Crystals, M. C. W., ¼-lb cartons.....	lb	1 50	CORROSIVE SUBLIMATE. N. Y. Q.....	lb	95
Crystals, M. C. W., ozs.....	lb	2 10	Powdered, N. Y. Q.....	lb	95
Crystals, 1-lb g. s. b. incl., Schering.....	lb	1 45	1-lb boxes, P. W. R.....	lb	95
Crystals, ½-lb g. s. b. incl., Schering.....	lb	1 55	COTOIN. Para, ⅛-oz.....	oz	14 00
Crystals, ¼-lb g. s. b. incl., Schering.....	lb	1 65	COTTON. Negative.	oz	60
Crystals, 1-oz g. s. vls. incl., Schering.....	oz	17	COWHAGE. 1-oz cans	oz	55
CHLORALAMID	25 gramme	80	CREAM TARTAR, pure, powdered.....	lb	33-36
CHLOROFORM. 1-lb. tin, N. Y. Q.....	lb	52	Pure, powdered, 25-lb box.....	lb	29
In 7-lb. bottle, N. Y. Q.....	lb	42	CREOLIN. ½-lb.....	doz	4 00
Squibb's, 1-500 gramme.....	ea.	1 00	1-lb	doz	8 00
CINCHONINE Alk'd pure 1-oz vials M.C.W.oz		25	CREOSOTE. Beechwood	lb	94
Bisulphate, M. C. W.	oz	18	½-lb	lb	1 10
Muriate, M. C. W.....	oz	17	¼-lb	lb	1 20
Sulphate, 1-oz vials, M. C. W.....	oz	17	CREOSOTE CARBONATE	oz	65
CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz		50	In ¼-lb	lb	9 25
Bisulphate, 1-oz vials, M. C. W.....	oz	30	In ½-lb	lb	9 15
Muriate, M. C. W.	oz	32	In 1-lb	lb	9 10
Salicylate, 1-oz vials, M. C. W.....	oz	34	CROCUS MARTIS	lb	16
Sulphate, 1-oz vials, M. C. W.....	oz	30	CUDBEAR	lb	30
Sulphate, 5-oz cans, M. C. W.....	oz	25	CUMARIN	oz	45
Sulphate, 1-oz vials, P. W. R.....	oz	28	CUMENE (Cumol)	lb	1 10
CLOVES. Zanzibar	lb	30	CURCUMA. Powdered	lb	16
Zanzibar, powdered	lb	35	CUTTLEFISH	lb	35
COBALT	lb	25	Jeweler's	lb	85
Cobalt, powdered	lb	30	Powdered	lb	30
COCAINE. Alk., M. C. W., 1-oz v'ls, incl.oz		3 50	DATURINE. Alk., cryst., 5-gr.....	ea	75
Hydrochloride, M. C. W.....	oz	2 65	DEXTRIN.	lb	12-15
Hydrochloride Cryst., 1-oz v'ls, N.Y.Q...oz		2 45	DIASTASE. of Malt	oz	1 14
Hydrochloride Cryst., ½-oz v'ls, N.Y.Q...oz		2 60	DIGALEN. ½-oz bottles	ea	1 00
Hydrochloride Cryst., ¼-oz v'ls, N.Y.Q...oz		2 70	DIGITALIN. ⅛-oz vials	oz	5 75
Hydrochloride Cryst., ⅛-oz v'ls, N.Y.Q...oz		2 85	DIONIN. ⅛s.	oz	6 25
Hydrochloride, 1-oz vials, P. W. R.....	oz	2 45	15-gr vials	ea	35
COCHINEAL. Honduras	lb	60	DOVER'S POWDER, U. S. P.....	lb	1 70
Honduras, powdered.	lb	65	DRAGON'S BLOOD, Mass.	lb	55
CODEINE. N. Y. Q., pure.....	oz	4 95	Powdered	lb	85
Muriate, N. Y. Q..... 1 oz, \$4 70.....	⅛s	4 90	Reed's.	lb	85
Phosphate, N. Y. Q., ⅛-oz vials.....	oz	4 65	DIURETIN.	oz	1 80
Pure, M. C. W.....	oz	4 95	DUBOISINE. Sulphate, 10-gr vial.....		1 10
Sulphate, M. C. W.....	oz	4 70	EARTH, Fuller's, powdered.	lb	8-10
Sulphate, 1-oz vials, P. W. R.....	oz	4 70	EIKONOGEN, lb, \$3.95; ½s, \$4.20.....	oz	37
COLLODION	lb	70	¼s.	lb	4 80
1-oz vials	doz	1 25	ELATERIN. 15-gr vial		1 25
Cantharidal	lb	1 85	ELATERIUM, ⅛-oz vials.....	oz	2 25
Cantharidal, 1-oz vials	doz	1 75	EMERY. Flour.	lb	10-12
Flexible	lb	70	Grain.	lb	10-12
Flexible, 1-oz vials	doz	1 00	EMETIN (Resinoid)	oz	7 53
COLCHICINE. Cryst., 15-grain.....	gr	14	(Alkaloid), pure, 15-gr vial.....		1 25
C. P., Amorph., 15-grain vials.....	gr	30	ERGOT. Spanish.	lb	65
COLOCYNTH. Apples, Trieste.....	lb	60-65	Spanish, powd.....	lb	65
Apples, powdered	lb	75	ERGOTIN. Bonjean	oz	36
COMPOSITION POWDER, 2-oz papers..lb		35	ERGOTOLE. S. & D.....	doz	4 50
CONFECTION. Aromatic	lb	1 00	ESERINE (Physostigmine), 5-gr Alkaloid..gr		13
Opium	lb	1 50	Sulphate, 5-gr vials	ea	50
Rose, U. S. P.	lb	65	Sulphate, 10-gr vials	ea	1 00
Senna, U. S. P.	lb	70	Sulphate, 15-gr vials	ea	1 50
Theriac	lb	1 25	ETHER. Acetic, M. C. W., 1-lb. bot.....	lb	61
COPPER. Acetate, cryst., C.P., M.C.W.....	lb	74	Benzoic, 1-oz bot.	oz	34
Acetate, com'l, lump	lb	40	Butyric, 1-lb bot.....	lb	1 25
Acetate, Po. Verdigris	lb	45	Chloric, U. S. P., M. C. W., 1-lb bot....	lb	64
Ammoniated	lb	59	Chloric, concent., M. C. W., 1-lb bot....	lb	74
Arsenite, 1-oz vials, M. C. W.	oz	19	Formic, 1-lb bot.	lb	1 59
Arsenite, 1-oz vials	oz	19	Hydrobromic, 1-oz bot.	oz	20
Bromide	oz	32	Nitrous, conc., M. C. W., ¼-lb bot.....	lb	1 20
Carbonate	lb	38	Nitrous, conc., M. C. W., ½-lb bot.....	lb	1 10

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Nitrous, conc., M. C. W., 1-lb bot.....lb	1 00	GADUOL	oz	37
Nitrous Spirit, 4-lb bot. lb	58	GAMBIER.	lb	15
Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	31	GARANTOSE. 550 times sweeter than sugar.		
Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	27	1-lb cans	lb	2 25
Sulphuric, U.S.P., ¼-lb cans, P.W.R.....lb	58	1-oz cans	oz	20
Sulphuric, U.S.P., 1-lb cans, P.W.R.....lb	41	GELATIN. Cooper's, 12-lb case.....lb		65
Sulphuric, washed, 1-lb bot.....lb	42	Coxe's.	doz	1 50
Sulphuric, Squibb's, in 1-500 gm cans.....ea	88	French Pink. lb		75
Sulphuric, Squibb's, in 1-250 gm cans.....ea	49	French Gold Label. lb		55
Sulphuric, Squibb's, in 1-100 gm cans.....ea	22	French Silver Label.....lb		40
Valerianic	30	GLASS. Powdered. lb		15
ETHYL. Bromide	20	Soluble.	lb	25
Chloride, 10 gramme tubes Bengue.....doz	5 00	GLUCOSE. 1-lb bot.....lb		20
Chloride, 30 gramme tubes Bengue.....doz	10 00	GLUE. Common. lb		15
Chlodire, 10 gramme	40	White, No. 1. lb		25
Iodide (see Hydriodic Ether)	54	GLUTOL	oz	65
EUCALYPTOL	16	GLYCERINE. Price's. lb		70
EUCAINE. A or B, ⅜s.....oz	3 60	Pure, in 10-lb cans	lb	22
EUDOXINE.	2 10	Pure, in 50-lb cans	lb	19 ½
Tablets, 3-gr. oz	2 60	GLYCEROPHOSPHATES. Iron	oz	32
Tablets, 5-gr. oz	2 50	Lime	oz	22
Tablets, 1-3 gr, ¼-oz bots.....oz	3 00	Potash	oz	29
EUKATROL, powd.....oz	1 00	Soda	oz	28
Tablets	1 00	GLYCYRRHIZIN. Ammoniated	oz	26
EUROPHEN.	1 80	GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70	
EXALGINE.	1 50	And Sodium Chlor, 15-gr vials, P.W.R..doz	3 30	
EXTRACT. Licorice, Corigliano. lb	45	Chloride, 15-gr vials, M. C. W.....doz	5 10	
Licorice, Mellor & Rittenhouse.....lb	27-30	Chloride, 15-gr vials, P. W. R.....doz	5 10	
Licorice, M. & R., 25 and 50-lb box....lb	26	Mono-bromide, 15-gr vials.....ea	1 25	
Licorice, soft, perf., clearly soluble.....lb	75	Tri-bromide, 15-gr vials	ea	1 00
Licorice, Y. & S.....lb	27-30	Tri-cyanide, 15-gr vials	ea	2 00
Licorice, powd.	35	GOOSE GREASE.	lb	60
Logwood, bulk	15	GRAINS. Paradise. lb		40
Logwood, ¼s. lb	20	Powdered.	lb	45
Logwood, ½s. lb	18	GUAIACOL. Carb.	oz	1 50
Logwood, 1s. lb	16	Merck's.	oz	18
Male Fern, U. S. P.....lb	2 25	GUARANA. Powd.....lb	2 75	
Malt, dry	1 25	GUM. Aloes, Barbadoes.....lb		50
Witch Hazel	80-90	Aloes, Barbadoes, powd.....lb		55
Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05	Aloes, Cape.	lb	20
Witch Hazel, 10-gal' kegs, Dickenson's..gal	1 00	Aloes, Cape, powd.....lb	20-25	
FAREOL.	50	Aloes, Socotrine	lb	40
FENETOLE	2 00	Aloes, Socotrine, powd.....lb		40
FERRATIN. Powder or tablets.....oz	85	Ammoniac tears. lb		40
FLAKE WHITE. English. lb	15	Arabic, Turkey, first pick.....lb		55
FLOUR. Gluten.	15	Arabic, Turkey, second pick.....lb		40
Rice.	12	Arabic, Turkey, sifted sorts. lb		20
FLOWERS. Althea.	40	Arabic, first pick, granulated.....lb		58
Arnica	20-22	Arabic, first pick, powd.....lb	60-65	
Arnica, powd. lb	25	Asafoetida, Calcutta. lb		40
Calendula, new	90	Asafoetida, powd. lb		45
Chamomile, German, new.....lb	35	Asphaltum.	lb	15
Chamomile, Roman	40	Benzoin, marble, select. lb		50
Elder	30	Benzoin, powd. lb		55
Elder, pressed. oz	25	Camphor, bulk	lb	90
Kooso.	75	Camphor, 1-oz blocks	lb	93
Kooso, powd.	80	Camphor, 24 to lb	lb	93
Lavender.	35	Camphor, powd. lb	1 10	
Mullein.....lb	1 00	Catechu, refined. lb		18
Orange.....lb	1 10	Catechu, powd. lb		30
Poppy, red. lb	75	Copal	lb	35
Rose, red.	1 20	Damar.	lb	38
Rosemary.	35	Galbanum.	lb	1 00
FLOUR SPAR. Powdered.....lb	25	Gamboge	lb	1 10
FORMALDEHYDE	32	Gamboge, powd. lb	1 15	
5-lb bot. lb	25	Guaiaac.	lb	35
FORMALIN. S. & G. lb	40	Guaiaac, powd. lb		40
FORMIN	18	Kino, true. lb		75
		Kino, true, powd.....lb		80

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Mastic tears	lb	80	HYOSCYAMINE. Alkaloid, crys. 15-gr vls.ea	4 75
Myrrh, Turkey.	lb	35	Amorphous	gr 25
Myrrh, Turkey, powd.....	lb	40	Hydrobromate, Amorph., 15-gr.....	ea 3 00
Olibanum tears	lb	30	Sulphate, crys., 15-gr	ea 3 03
Opium	lb	5 75	Sulphate, Amorph., 5-gr vials.....	ea 1 25
Opium, powd	lb	6 25	IATROL.	oz 95
Sandarac.	lb	45	ICHTHARGAN	oz 3 00
Scammony, Aleppo.	oz	40	ICHTHORFORM	oz 1 00
Scammony, Virgin, true.....	oz	75	ICHTHYOL, 1-oz vials	oz 32
Shellac, bleached.	lb	75	1/4s	oz 4 25
Shellac, orange.	lb	70	1/2s	oz 4 10
Shellac, ground.	lb	75	1s	oz 4 00
Spruce.....	lb	1 50	INDIGO, Manila, extra.....	lb 75
Tamarac, true.	lb	1 25	IODIPIN (10% Iodized Sesame oil).....	oz 28
Thus.	lb	12	IODINE, Bromide, 1-oz vials, M.C.W.....	oz 47
Tragacanth, ribbon.	lb	90	Chloride, 1-oz vials, M.C.W.....	oz 52
Tragacanth, powd.	lb	80	Resublimed, 1-oz vials, M. C. W.....	oz 34
GUTTA PERCHA. Cruda, shavings.....	lb	1 75	Resublimed, M. C. W.....	lb 3 23
Crude, sheets.	lb	1 75	Resublimed, N. Y. Q.....	lb 3 23
HEDONAL.	oz	1 60	Resublimed, 1-lb bots., P. W. R.....	lb 3 23
HEMICRANIN	oz	90	Burnham's, soluble.	oz 1 00
HEMOGALLOL	oz	80	IODOFORM, bulk, M. C. W.....	lb 3 68
Tablets	100	80	Iodoform, 1-lb bots., N. Y. Q.....	lb 3 68
HEROIN. 1-oz.	oz	6 70	Iodoform, 1-lb bots., P. W. R.....	lb 3 68
1/2-oz vial	oz	6 85	Cryst. or powd	oz 34
1/4-oz vial	oz	7 00	Deodorized.	oz 54
15-gr vial	ea	29	IODOL.	oz 1 25
Hydrochloride, oz vial	oz	6 70	IRON, Acetate, dry, 1-oz vials, M.C.W.....	oz 20
1/2-oz vial	oz	6 85	Acetate, liquor.	lb 44
1/4-oz vial	oz	7 00	Albuminate.	oz 20
15-gr vial	ea	29	Ammoniated, M. C. W.....	lb 44
HEXAMETHYLENAMINE	lb	1 45-1 60	And Ammonium Cit	lb 75
"	oz	16	Arseniate, 1-oz vials.	oz 18
HIERA PICRA.	lb	50	By Hydrogen	lb 60
HOFFMAN'S ANODYNE.	lb	75	Carbonate, precipitated.	lb 18
HOMATROPINE, Alk'l'd, 5-gr vials.....	ea	2 25	Carbonate, proto.	lb 42
HOMATROPINE. Alk'l'd, 5-gr vials.....	ea	2 25	Carbonate, saccharated.	lb 45
Hydrobromate, 5-gr vials	ea	1 75	Chloride, 1-oz vials.....	oz 8
Hydrochlorate, 5-gr vials	ea	2 10	Chloride, crystal.	lb 34
HOMOGLOBIN. Powd	oz	1 04	Chloride, sol. for tincture.....	pt 35
HOPS, new, bulk.	lb	37	Citrate, soluble, 1-oz vials.....	oz 13
New, ozs.	lb	50	Citrate, soluble, N. Y. Q.....	lb 73
New, 1/4s, 1/2s.	lb	40	Citrate, soluble, M.C.W.	lb 75
HYDROCHINON	oz	18	Citrate and quinine, N. Y. Q.....	lb 2 00
"	lb	1 42	Citrate and Quinine, sol., M. C. W.....	lb 2 00
HYDROGEN PEROXIDE, Drevet's U.S.P.,			Citrate and Quinine with Strych., M.C.W.lb	2 55
1-lb bots.	doz	3 00	Citrate and Quinine with Strych., M.C.W.oz	26
Drevet's U.S.P., 1/2-lb bots.....	doz	1 90	Citrate and Strychnine, 1-oz vials, M.C.W.oz	13
Drevet's U.S.P., 1/4-lb bots.....	doz	1 40	Ferrocyanide, 1-oz vials, M. C. W.....	oz 10
Marchand's, 1-lb bots.....	doz	8 00	Ferrocyanide, M. C. W.....	lb 65
Marchand's, 1/2-lb bots.....	doz	5 25	Filings.....	lb 16
Marchand's, 1/4-lb bots.....	doz	3 80	Glycerino Phosphate.	oz 32
Marchand's, 1/8-lb bots.....	doz	2 25	Hypophosphite, 1-oz vials, M. C. W.....	oz 20
M. C. W., 1-lb bots.....	doz	3 00	Iodide, 1-oz vials, M. C. W.....	oz 33
M. C. W., 1/2-lb bots.....	doz	1 80	Lactate, 1-oz vials, M. C. W.....	oz 10
M. C. W., 1/4-lb bots.....	doz	1 20	Lactophosphate, 1-oz vials, M. C. W.....	oz 19
Oakland, 1-lb bots.....	doz	6 50	Nitrate, sol., U. S. P., M. C. W.....	lb 34
Oakland, 1/2-lb bots.....	doz	4 00	Oxide, black.	lb 49
Oakland, 1/4-lb bots.....	doz	2 25	Oxide, brown, com'l	lb 22
Oakland, 5-lb bots.....	ea	1 59	Oxide, brown, pure	lb 74
HYDRO NAPHTHOL.	oz	75	Peptonized	oz 24
HYDRASTINE. Alkaloid	oz	10 04	Phosphate, precipitate.	lb 39
Hydrochloride	oz	20 00	Phosphate, U. S. P., scales, N. Y. Q.....	oz 13
HYDRASTININE. Hydrochloride, 15-gr vls.ea		3 00	Phosphate, U. S. P., scales, N. Y. Q.....	lb 75
HYDROQUINONE	oz	18	Pyrophosphate, soluble, N. Y. Q.....	lb 75
HYOSCINE. Amorphous, 15-gr vials.....	ea	2 00	Pyrophosphate, U. S. P., 1880, N. Y. Q.....	oz 13
Hydrobromate, 5-gr vials	ea	2 00	Pyrophosphate, U. S. P., 1880, N. Y. Q.....	lb 75
Hydriodide, 5-gr vials	ea	2 00	Reduced (Quevenne's)	lb 58
Sulphate, 5-gr vials.....	ea	2 00	Reduced (Quevenne's)	oz 10

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Salicylate, 1-oz vials, M. C. W.....oz	15	Coltsfoot, pressed. oz	25
Subsulphate, M. C. W.....oz	6	Damiana.....lb	30
Subsulphate, M. C. W.....lb	36	Digitalis, pressed. oz	35
Subsulphate, sol., M. C. W.....lb	23	Digitalis. lb	35
Succinate oz	60	Digitalis, powd. lb	35
Sulphate, dried. lb	20	Eucalyptus. lb	20
Sulphate, gran., pure.....lb	18	Grindelia Robusta lb	25
Sulphate, pure, cryst., M. C. W.....lb	20	Grindelia Squarosa lb	40
Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13	Hemlock, pressed. oz	30
Tannate, 1-oz vials, M. C. W.....oz	22	Henna. lb	50
Tartrate and Ammonia, M. C. W.....oz	11	Henna, powd. lb	55
Tartrate and Ammonia, M. C. W.....lb	72	Henbane. lb	30
Tartrate and Potassium, M. C. W.....oz	10	Henbane, powd. lb	30
Tartrate and Potassium, scale, M. C. W...lb	58	Henbane, pressed, oz.....lb	30
Tersulphate, sol., U. S. P.....lb	40	Jaborandi. lb	35
Valerianate. oz	22	Jaborandi, powd. lb	40
IODOTHYRINE. oz	3 40	Laurel. lb	25
ISINGLASS, American lb	1 05	Lovage, pressed, oz.....lb	30
Russian. lb	5 25	Lungwort, pressed, oz.....lb	34
KAMALA. lb	65	Marjoram, sweet lb	36
Powd. lb	75	Rosemary, bulk. lb	20
KAOLIN.....lb	10	Rosemary, pressed, oz. lb	25
KERATIN (Pepsinized), 1/8s oz	3 53	Sage, oz. lb	25
KOUSSO. lb	75	Savin, pressed, oz.....lb	25
Powd.....lb	75	Senna, Alexandria, garbeled.....lb	30
KRYOFINE. oz	1 00	Senna, Alexandria, powd. lb	30
LACTUCARIUM oz	80	Senna, Tinnevely, select.....lb	25
LACTOPHEPIN. oz	1 00	Stramonium, powd. lb	30
LANOLIN. lb	80	Stramonium, pressed, oz.....lb	25
Lanae Adeps, 1-lb cans, B. J. D.....lb	35	Thyme, pressed, oz.....lb	25
Lanae, British. lb	35	Uva, Ursi. lb	20
LANUM (Adeps Lanae Hydrosus) lb	40	Witch Hazel, pressed, oz.....lb	25
LARD, Benzoated, 5-lb cans.....lb	27	LEECHES. ea	10
LARGIN oz	1 75	2 dozen lots.....ea	8
LEAD. Acetate, med. crys. or gran.....lb	33	LEPTANDRIN. oz	35
Acetate, white. lb	18	LIME, Chloride, 35-lb cans.....lb	5
Acetate, white, powd.....lb	25	Chloride, in bbls of 350 lbs.....lb	2 3/4
Acetate, purified, gran., 1-lb cart., M.C.W.lb	33	Chloride, 1b cans doz	90
Bromide. oz	24	Chloride, 1/2-lb cans.....doz	65
Carbonate.....lb	12	Chloride, 1/4-lb cans.....doz	45
Chloride, 1-oz vials.....oz	11	LITHARGE. lb	12
Chromate, M. C. W.....lb	1 19	LITHIUM, Benzoate, 1-oz vials, M.C.W...oz	15
Iodide, 1-oz vials, M. C. W.....oz	25	Bromide, 1-oz vials, M. C. W.....oz	21
Nitrate, 1-lb boxes, M. C. W.....lb	23	Carbonate, M. C. W.....oz	15
Nitrate, chemically pure, M. C. W.....lb	40	Citrate, 1-oz vials, M. C. W.....oz	16
Oxide, chemically pure, M. C. W.....lb	84	Iodide oz	35
Oxide lb	84	Salicylate, 1-oz vials, M. C. W.....oz	15
Subacetate, sol. lb	35	LITMUS. lb	50
Sulphate, pure, M. C. W.....lb	63	Paper. doz	50
Tannate, 1-oz vials, M. C. W.....oz	24	LODESTONE. lb	75
LEAVES, Aconite, German.....lb	30	LONDON PURPLE. lb	20
Aconite, powd. lb	30	LOSOPHAN. oz	1 80
Aconite, pressed. oz	25	LUPULIN, German. lb	75
Angelica, pressed. oz	25	LYCOPodium. lb	75
Bay, bulk. lb	15	LYCETOL. oz	4 25
Belladonna, English, bts.....lb	1 25	LYSOL, 1-gal. jugs.....gal	4 00
Belladonna. lb	30	Pints. doz	8 00
Belladonna, powd. lb	35	MACE.....lb	75
Belladonna, pressed. oz	35	Powd. lb	75
Blessed Thistle, pressed.....oz	34	MADDER, Dutch. lb	15
Borage, pressed. oz	35	MAGNESIUM, Benzoate, M. C. W.....oz	24
Buchu, long. lb	55	Bromide, Mallinckrodt's. oz	25
Buchu, short. lb	40	Calcined, Jennings', 1-lb cans.....lb	85
Buchu, powd. lb	40	Calcined, K. & M.'s, 1-lb cans.....lb	75
Buckbean, pressed oz	30	Calcined, K. & M.'s, heavy.....lb	80
Cocoa.....lb	45	Carbonate, Jennings', 2-oz.....lb	35
Conium. lb	30	Carbonate, Jennings', 4-oz.....lb	35
Conium, powd. lb	35	Carbonate, K. & M.'s, 1-oz.....lb	27
Conium, pressed. oz	30	Carbonate, K. & M.'s, 2-oz.....oz	23

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Carbonate, K. & M.'s, 4-oz.....lb	23	Tonquin, grain dr	3 25
Carbonate, K. & M.'s, small sq.....lb	60	MUSTARD, Colman's, 4-oz cans.....doz	1 75
Carbonate, powd., in 65-lb bbls.....lb	13	Colman's, 5-lb cans lb	50
Carbonate, powd., in 10-lb boxes.....lb	16	Ground, Domestic, 5-lb cans.....lb	18
Citrate, dry, English.....lb	65	NAPHTHALIN, Balls. lb	5-7
Citrate, sol. doz	1 75	Resublimated lb	27
Glycerinophosphate oz	44	Pure, 1-lb cartons, M. C. W.....lb	27
Hypophosphite, 1-oz vials, M. C. W.....oz	20	NAPHTHOL, Alpha. oz	30
Hypophosphite, M. C. W.....lb	1 69	Beta. oz	10
Hypophosphite oz	20	NICKEL, Bromide oz	32
Iodide, M. C. W.....oz	47	Bromide, 1-oz vials, M.C.W.....oz	29
Sulphite, M. C. W.....lb	49	Nickel and Ammonia Sulphate, M. C. W..lb	34
MANGANESE, Black, Oxide lb	8-10	Sulphate, 1-oz vials, M. C. W.....oz	9
Phosphate, M. C. W.....oz	18	Sulphate oz	10
Carbonate, 1-oz vials, M. C. W.....oz	14	NOSOPHEN. doz	4 50
Chloride, 1-oz vials, M. C. W.....oz	14	NUTGALLS, Aleppo. lb	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aleppo, ground. lb	35
Hypophosphite oz	20	Aleppo, powd. lb	35
Iodide, 1-oz vials, M. C. W.....oz	47	NUTMEGS, Macassar, large.....lb	60
Peptonized oz	29	Penang, powd. lb	65
Phosphate, M. C. W.....oz	18	NUTS, Areca lb	30
Sulphate, 1-oz vials, M. C. W.....oz	9	Areca, powd. lb	40
MANNA, Large flake lb	1 15	Kola. lb	35
Small flake lb	75	Kola, powd. lb	40
MENTHOL lb	3 40	NUX VOMICA. lb	25
Cryst., 1-oz vials, Mallinckrodt's.....oz	30	Powdered or rasped.....lb	25
Crystallized lb	3 50	OAKUM lb	15
MERCURY, Chloride lb	99	Surgeon's. lb	20
Ammoniate, d white precip. lb	1 25	OIL, Almonds, Bitter, true, Merck's.....lb	6 59
Bisulphate lb	76	Almonds, Bitter, Allen's.....oz	75
Cyanide oz	31	Almonds, Sweet, Allen's.....lb	75
Iodide, green, 1-oz vials, M. C. W.....oz	23	Almonds, Sweet lb	50-65
Iodide, red, 1-oz vials, M. C. W.....oz	25	Amber, rectified. lb	60
Iodide, yellow, 1-oz vials, M. C. W.....oz	23	Anise lb	1 75-2 00
Nitrate, proto., 1-oz vials, M. C. W.....oz	27	Bay Leaves, true.....oz	35
Nitrate, solution, 1-oz vials.....oz	27	Bay Leaves lb	3 75-4 00
Oxide, black, 1-oz vials.....oz	18	Benne.....gal	1 20
Oxide, red (red precip.).....lb	1 20	Bergamot lb	4 75-5 00
Oxide, yellow, 1-oz vials oz	19	Birch Tar, rectified.....lb	1 25
Salicylate, M. C. W.....oz	27	Cade.....lb	50
Subsulphate, 1-oz vials. oz	15	Cajuput (21-oz bottles).....lb	1 10-1 35
Subsulphate lb	1 12	Calamus. oz	45
Sulphuret, black. lb	78	Camphor, E. I. lb	45
White Chalk, 1-lb cartons lb	46	Caraway, seed. lb	2 25
METHYL, SALICYLATE. lb	80	Cardamon. oz	2 50
METHYLENE, Blue Medicinal oz	45	Cassia lb	1 85-2 00
MILK SUGAR, Cryst.....lb	33	Castor, Baker's A. A.....gal	1 38-1 50
Powdered, bulk lb	23	Castor, Marsh's gal	1 34-1 45
M. C. W., 1-lb cartons lb	25	Castor, 2-oz bottles.....doz	85
MORPHINE, Sulphate, 1/8s, 1-oz box, M. C. W.....oz	3 55	Castor, 4-oz bottles.....doz	1 25
Sulphate, 1 1/8s, 2 1/2-oz box, M. C. W.....oz	3 50	Castor, 6-oz bottles.....doz	1 75
Sulphate, 1-oz vials, M. C. W.....oz	3 30	Castor, 8-oz bottles.....doz	2 25
Sulphate, 5-oz can, M. C. W.....oz	3 25	Castor, 12-oz bottles.....doz	2 50
Sulphate, 1 1/8s, 1-oz box, N. Y. Q.....oz	3 55	Castor, 16-oz bottles.....doz	3 75
Sulphate, 1 1/8s, 2 1/2-oz box, N. Y. Q.....oz	3 50	Cedar lb	60-100
Sulphate, 1-oz vials, N. Y. Q.....oz	3 30	Cedrat. oz	40
Sulphate, 1/8s, 2 1/2-oz box, P. W. R.....oz	3 50	Celery. oz	1 40
Sulphate, 1-oz bot, P. W. R.....oz	3 30	Chamomile, German. oz	5 00
In 10-oz lots, 10c oz less.		Chamomile, Roman. oz	1 75
Morphia, Acetate, 1/8s, M. C. W.....oz	4 00	China, Nut. gal	1 00
Morphia, Muriate, 1/8s, M. C. W.....oz	4 00	Cinnamon, Ceylon. oz	90
Morphia, Valerianate, 1/8s, M. C. W.....oz	5 00	Citronella lb	75-85
Other salts or Morphine subject to market price based on above.		Cloves lb	1 40-1 65
MOSS, Iceland. lb	18	Cocanut lb	20-25
Irish. lb	15	Codliver, White, Norwegian.....gal	1 65
Irish, bleached. lb	20	Codliver, white, Norwegian, 5-gal cans..gal	1 50
MUSK, Chinese oz	40	Cognac, green. oz	2 50
		Cologne. oz	50
		Copaiba.....lb	1 75

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Coriander.	oz	90
Cotton Seed (salad), 5-gal can.	gal	95
Cotton Seed (salad), 1-gal can.	gal	1 20
Croton, 24-oz bots.	lb	1 50-1 65
Croton	oz	20
Cubebs	lb	2 00-2 25
Ergot, Keith's.	oz	57
Erigeron, Keith's.	oz	38
Erigeron	lb	2 75
Eucalyptus	lb	85
Fennel Seed	lb	2 25
Fusil, purified.	lb	80
Geranium, Rose, Chris.	oz	75
Hemlock	lb	85
Hydrocarbon.	gal	1 25
Jasmin, alcoholic.	lb	3 00
Juniper Berries.	lb	1 25-1 50
Juniper, wood.	lb	75
Lard.	gal	1 10
Laurel, expressed.	lb	60
Lavender, Flowers	lb	3 85
Lavender, Garden	lb	1 25
Lemon	lb	2 00
Lemon, Sanderson's	lb	2 25
Lemon, Grass	lb	2 25
Linseed, raw	gal	74
Linseed, raw, case	gal	67
Linseed, boiled	gal	74
Linseed, boiled, case	gal	69
Mace, expressed.	lb	1 75
Male Fern, ethereal.	oz	35
Myrbane.	lb	40
Mullein.	oz	45
Musk, alcoholic.	oz	1 00
Mustard, essential.	oz	50
Mustard, expressed.	gal	90
Neatsfoot, No. 1.	gal	90
Neroli, Petal.	oz	3 00
Neroli, Bigarade.	oz	5 75
Neroli, Petit Grain.	oz	55
Nutmegs, essential.	oz	35
Olive, pure, Malaga.	gal	1 25
Olive, California	gal	2 75
Olive, 1/2-gals.	gal	3 00
Olive, small	doz	3 75
Olive, large.	doz	7 50
Olive, imported.	gal	2 00-2 10
Orange, bitter.	lb	4 50
Orange, sweet	lb	3 25
Origanum, pure.	lb	60
Origanum, Chris.	lb	1 85
Palm.	lb	25
Patchouly.	oz	75
Pennyroyal	lb	4 00
Pepper, black.	oz	20
Peppermint, Hotchkiss	lb	3 25-3 50
Peppermint, Wayne Co.	lb	2 75-3 00
Peppermint, Western	lb	2 75-3 00
Pimento.	oz	30
Pinus, Sylvestris, German.	lb	1 50
Pinus, Pumilio.	lb	4 50
Pinus Pumilio.	oz	40
Rhodium	oz	35
Rose, Kizanlik	oz	7 50
Rosemary, flowers.	lb	1 25-1 50
Rue.	oz	40
Sandalwood, English.	lb	5 50
Sandalwood, German.	lb	3 00-3 20
Sassafras.	lb	90-1 00

Savin.	lb	1 75
Spearmint	lb	5 60
Sperm.	gal	1 00
Spike.	lb	35
Spruce.	lb	85
Tansy	lb	5 50
Tar.	lb	25
Thyme, white.	lb	1 50
Turpentine, pure.	lb	55
Wine, light.	oz	40
Wine, heavy.	oz	50
Wintergreen	lb	4 00-4 25
Wormseed.	lb	3 75-4 00
Wormwood	lb	5 25
Ylang Ylang.	oz	4 50
OINTMENT, Basilicon.	lb	65
Citrine.	lb	65
Iodine.	lb	1 25
Mercurial, 1/4 m.	lb	65
Mercurial, 1/3 m.	lb	55
Stramonium.	lb	75
Tar.	lb	50
Zinc, benzoated.	lb	65
Zinc, oxide.	lb	65
OPIUM, powd. or gran., P. W. R.	lb	7 25
ORTHOFORM	oz	1 40
PANCREATIN. Pure	oz	44
Pure, scales, P. D. & Co.	oz	50
PAPAIN, Boehringer.	oz	75
PARAFFINE, refined.	lb	12-15
PARALDEHYDE	lb	99
.	oz	14
PARIS GREEN.	lb	38-42
PASTILLES, Fumigating, black.	lb	50
Fumigating, red	lb	50
PEARL ASH.	lb	8-10
PEEL, Orange, sweet, ground.	lb	20
Orange, bitter, coarse.	lb	20
Orange, bitter, powdered.	lb	20
Orange, sweet, quarters.	lb	20
PELLETIERINE, Sulphate, 15-gr vial.	lb	1 75
Tannate, 15-gr vial	lb	35
PEPPER, black, Singapore, sifted.	lb	30
Black, powd.	lb	30
White.	lb	40
White, powd.	lb	40
PEPSIN, pure, U. S. P.	lb	4 50
Powd. or scales.	lb	4 50
Powd., Ph. G. III.	oz	25
PEPTONE, Merck's, dry, from meat.	oz	34
PETROLATUM, 1-lb cans.	doz	2 00
50-lb pails.	lb	7
25-lb pails.	lb	7 1/2
10-lb cans.	lb	9
5-lb cans.	lb	10
Snow White, 50-lb pails.	lb	15 1/2
Snow White, 25-lb pails.	lb	16 1/2
Snow White, 10-lb cans.	lb	18
Snow White, 5-lb cans.	lb	19
Snow White, 1-lb cans.	lb	30
PHENACETINE.	oz	33
PHENILINE.	oz	1 00
PHENOLPHTHALEIN	oz	34
PHOSPHORUS, 1-lb cans.	lb	85
1/2-lb cans.	lb	95
1/4-lb cans.	lb	1 05
Amorphous.	lb	1 44
PIPERAZIN, Schering's 10-gm vials.	bot	1 50
1/2-oz and 1-oz.	oz	4 25

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PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62	Jalap, comp. lb	1 00
PIPE CLAY. lb	12	Licorice, comp. lb	25
PITCH, Burgundy lb	15	Licorice, comp., 2-oz packages.....doz	75
PITH, Sassafras. lb	1 50	Rhubarb, comp. lb	1 50
PLATINUM and Barium Cyanide, cr.....gr	15	Tooth. lb	50
Chloride oz	17 00	PROPYLAMIN, 10% solution oz	55
Chloride, solution, 10%.....oz	2 82	Hydrochlorate, 1/8-oz vials. oz	3 50
PODOPHYLLIN oz	30	PROTARGOL. oz	1 25
POPPY HEADS, German. lb	30	PULVIS ANTIMONIALIS. lb	85
POTASH, Babbitt's, 4 doz in case.....case	3 40	PYOKTANIN, Blue or Yellow oz	1 50
Caustic, pure, by alcohol.....lb	60	PYRIDINE oz	32
Caustic, white. lb	37	QUICKSILVER. lb	80
Caustic, 10-lb cans.....lb	10-12	QUINACETINE. oz	85
Solution (liq. potass.) lb	35	QUINALGIN. oz	1 25
POTASSIUM. Acetate, M. C. W., 1-lb.....lb	42	QUININE, Alkaloid, 1-oz vials, M.C.W....oz	58
Antimonate lb	1 09	Bisulphate, 1-oz vials, M.C.W.....oz	28
Arsenate, 1-oz vials oz	14	Bisulphate, 5-oz cans, M.C.W.....oz	26
Bicarbonate, cryst., M. C. W.....lb	20	Citrate, 1-oz vials, M.C.W.....oz	57
Bicarbonate, granulated, M. C. W.....lb	20	Muriate, 1-oz vials, M.C.W.....oz	51
Bicarbonate, powd. lb	20	Phosphate, 1-oz vials, M.C.W.....oz	55
Bichromate lb	18-20	Salicylate, 1-oz vials, M.C.W.....oz	54
M. C. W. lb	34	Sulphate, 1-oz cans, M.C.W.....oz	28
Bromide, crys. or gran., M. C. W.....lb	27-30	Sulphate, 5-oz cans, M.C.W.....oz	25
Carbonate, purified, M. C. W.....lb	41	Sulphate, 25-oz cans, M.C.W.....oz	21
Carbonate, bulk. lb	15	Sulphate, 50-oz cans, M.C.W.....oz	20
Caustic, pure lb	37	Sulphate, 100-oz cans, M.C.W.....oz	18
Caustic, C. P. lb	2 59	Sulphate, 1-oz cans, N. Y. Q.....oz	28
Chlorate, cryst. lb	16-18	Sulphate, 5-oz cans, N. Y. Q.....oz	25
Chlorate, gran., pure, M. C. W.....lb	22	Sulphate, 25-oz cans, N. Y. Q.....oz	21
Chlorate, powd. lb	16-18	Sulphate, 100-oz cans, N. Y. Q.....oz	18
Chloroplatinite, M. C. W., 15-gr vials..each	80	Sulphate, 1-oz cans, P. W. R.....oz	28
Chromate, yellow, neutral. lb	40	Sulphate, 5-oz cans, P. W. R.....oz	25
Citrate, M. C. W.....lb	66	Sulphate, 25-oz cans, P. W. R.....oz	21
Cyanide, fused, M. C. W.....lb	45	Sulphate, 100-oz cans, P. W. R.....oz	18
Cyanide, C. P. 99%.....lb	52	Tannate, Neutral oz	38
Cyanide, Miner's, 10-lb tin.....lb	28	Tannate, 1-oz vials, M.C.W.....oz	37
Ferricyanide, chem. pure, M. C. W.....lb	1 04	Valerianate, 1-oz vials, M.C.W.....oz	57
Ferrocyanide, pure lb	59	QUINOLINE oz	45
Glycerinophosphate.. oz	26	Tartarate oz	45
Hypophosphite, M. C. W.....lb	99	QUINIDINE. N. Y. Q., 1-oz vial.....oz	85
Iodide, M. C. W., 1-lb boxes.....lb	2 27	Sulphate, N. Y. Q., 1-oz vial.....oz	75
Iodide, N. Y. Q., 1-lb boxes.....lb	2 27	RED SAUNDERS. lb	12
Iodide, cryst. or gran., 1-lb boxes, P.W.R.lb	2 52	RESIN, Jalap oz	54
Nitrate, cryst. lb	10-12	RESORCINOL (Resorcin) M. C. W.....lb	1 30
Nitrate, granulated. lb	10-12	Resorcinol (Resorcin) M. C. W.....oz	17
Nitrate, chemically pure, M. C. W.....lb	30	ROOT, Abscess, pressed, lb.....lb	40
Oxalate, neutral. lb	28	Aconite, powd.....lb	35
Permanganate, cryst., 1-oz vials.....oz	8	Aconite, pressed.....lb	32
Permanganate, large cryst., pure, M.C.W..lb	27	Copaiba. lb	1 50
Permanganate, small cryst.....lb	25	Scamony oz	40
Phosphate, 1-oz vials.....oz	11	Alkanet lb	25
Phosphate lb	64	Alkanet, powd.....lb	30
Prussiate, red. lb	65	Angelica, pressed lb	20
Prussiate, yellow. lb	35	Angelica, powd lb	25
Sulphate, cryst. or powd.....lb	16	Arnica, pressed lb	35
Sulphate, chemically pure.....lb	60	Belladonna, pressed, lb. lb	25
Sulphide (Liver Sulphur).....lb	24	Belladonna, powd.....lb	28
Tartrate (soluble Tartar).....lb	59	Berberis Aquif, pressed, lb.....lb	45
POWDER, Antimonial. lb	85	Beth, pressed, lb.....lb	30
Aromatic. lb	1 25	Beth, powd lb	35
Carbolic Acid, disinfecting.....doz	1 50	Blackberry, pressed, lb.....lb	30
Chalk, aromatic. lb	75	Blood, pressed, lb.....lb	30
Chalk, compound. lb	75	Blood, powd.....lb	35
Chalk and Opium. lb	2 50	Blue Flag, pressed lb	25
Composition, 2-oz papers.....lb	35	Burdock, pressed, lb. lb	25
Dover's lb	1 70	Burdock, powd.....lb	25
Insect, Buhach, 6-lb cans.....lb	60	Calamus, peeled lb	30
Insect, Dalmatian. lb	25-30	Calamus, white, peeled and split.....lb	50
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Calamus, powd.....lb	35

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Cohosh, black, pressed. lb	25	Rhubarb, East India, powd lb	75
Cohosh, black, powd. lb	25	Rhubarb, cut in cubes, No. 1.....lb	1 25
Cohosh, blue, pressed, lb.....lb	25	Rhubarb, cut in cubes, No. 2.....lb	1 00
Cohosh, blue, powd.....lb	25	Rhubarb, cut in fingers, No. 1.....lb	1 50
Colchicum lb	28	Rhubarb, cut in fingers, No. 2.....lb	1 25
Colchicum, powd lb	35	Salep, powd lb	1 00
Columbo, foreign. lb	25	Sarsaparilla, American lb	35
Columbo, powd.....lb	25	Sarsaparilla, American, powd lb	35
Comfrey, pressed, lb. lb	25	Sarsaparilla, Honduras lb	65
Comfrey, powd.....lb	25	Sarsaparilla, Honduras, ground.....lb	65
Cranesbill, pressed, lb.....lb	25	Sarsaparilla, Honduras, powd lb	65
Culvers, pressed, lb.....lb	25	Sarsaparilla, Mexican lb	20
Culvers, powd lb	30	Sarsaparilla, Mexican, ground lb	25
Dandelion, Am., pressed, lb.....lb	35	Sarsaparilla, Mexican, powd lb	25
Dandelion, powd lb	35	Senega, pressed lb	75
Dwarf Elder, pressed, lb.....lb	35	Senega, powd. lb	80
Elecampane, pressed, lb. lb	25	Senega, powd. lb	28
Elecampane, powd lb	25	Silkweed, pressed lb	30
Gelsemium, pressed, lb.....lb	25	Skunk Cabbage, pressed lb	35
Gelsemium, powd lb	25	Skunk Cabbage, powd lb	35
Gentian lb	18	Snake, Canada, pressed.....lb	65
Gentian, ground lb	20	Snake, Virginia lb	65
Gentian, powd lb	20	Snake, Virginia, powd lb	70
Ginger, African. lb	17	Spikenard, pressed lb	72
Ginger, African, powd lb	18	Spikenard, powd lb	30
Ginger, Jamaica, bleached. lb	27	Squills, white, sliced. lb	20
Ginger, Jamaica, bleached, powd.....lb	30	Squills, powd lb	60
Ginseng lb	8 50-10 00	Stillingia, pressed lb	25
Golden Seal lb	2 40	Stillingia, powd lb	30
Golden Seal, powd lb	2 40	Stone, pressed lb	25
Hellebore, black, pressed.....lb	25	Sweet Flag, pressed lb	25
Hellebore, black, powd.....lb	25	Turkey Corn lb	28
Hellebore, white, pressed, lb.....lb	25	Unicorn, true, pressed lb	35
Hellebore, white, powd.....lb	25	Unicorn, true, powd lb	40
Indian Hemp, black, pressed, lb.....lb	35	Unicorn, false, pressed.....lb	40
Indian Hemp, black, powd lb	40	Unicorn, false, powd lb	45
Indian Hemp, white, pressed lb	25	Valerian, English, bulk.....lb	35
Indian Hemp, white, powd lb	30	Valerian, English, powd lb	35
Ipecac, Rio, powd.....lb	2 50	Valerian, German lb	30
Jalap lb	30	Valerian, German, powd lb	30
Jalap, powd lb	35	Yellow Dock lb	25
Kava Kava lb	50	Yellow Dock, ground lb	30
Ladies' Slipper, pressed, lb.....lb	75	Yellow Dock, powd lb	30
Licorice, select lb	16	Zedoary lb	30
Licorice, pipestem lb	18	ROSIN, No. 1. lb	6-8
Licorice, cut, Russian lb	20	Barrel.	7 75
Licorice, powd lb	16-20	ROUGE, Jewelers' lb	50
Mandrake, pressed, lb.....lb	30	SACCHARIN tin	35
Mandrake, powd lb	35	SAFFRON, American lb	60
Marshmallow, cut lb	34	Spanish. oz	80
Marshmallow, powd lb	35	Spanish lb	10 50
Musk lb	30	SAL, Acetosella lb	30
Orris, Florentine lb	25	Epsom lb	2 1/2-5
Orris, Florentine, Fingers.....lb	1 25	Glauber lb	1 1/2-4
Orris, Florentine, granulated.....lb	35	Nitre lb	10-12
Orris, Florentine, powd.....lb	30	Nitre, granulated. lb	10-12
Pareira Brava, pressed lb	34	Nitre, powd. lb	10-12
Pink. lb	85	Prunelle lb	45
Pink, powd. lb	90	Rochelle. lb	28-30
Pleurisy, pressed lb	25	Soda. lb	3-5
Poke, pressed lb	25	Tartar. lb	15
Poke, powd lb	20	SALICINE oz	37
Pond Lily, white, pressed lb	40	lb	4 60
Pond Lily, white, powd lb	40	SALIPYRINE oz	1 00
Pond Lily, yellow, pressed lb	30	SALOL, Mallinckrodt's.....oz	15
Pond Lily, yellow, powd lb	35	Salol, Mallinckrodt's, cartons lb	1 17
Rhatany lb	30	SALOPHEN oz	1 00
Rhatany, powd lb	35	SANTONIN, bulk, M. C. W.....lb	8 00
Rhubarb, East India lb	75	1-oz vials, M. C. W.....oz	60
		SEED, Angelica lb	25

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Anise, Italian	lb	20	Rappee, ...	lb	65
Anise, Italian, powd.....	lb	25	Rappee, 3 1/3-oz bots.....	doz	2 00
Anise, Star	lb	45	Scotch, Lorillard's	lb	65
Bird, mixed, bulk.	lb	8	Scotch, Lorillard's	doz	2 00
Bird, mixed, boxes.	doz	1 00	Scotch, Garrett's Bladders.....	lb	55
Bird, mixed, cases, 30 pks.....		2 25	SOAP, Castile, Conti's, white, box 14c less..	lb	17
Burdock	lb	25	Castile, mottled, box 8 1/2c; less.....	lb	12
Canary	lb	9-10	Castile, powdered, white.....	lb	35
Carraway, Dutch.	lb	15	Green, German	lb	25
Carraway, powd.	lb	17	Opodeldoc	lb	65
Cardamon, Malabar.	lb	1 00	SODA, Ash.	lb	2 1/2-5
Cardamon, Mangalor, bleached.....	lb	1 25	Caustic, Sticks	lb	34
Cardamon, powd.	lb	1 00	Caustic, com., drums.....	lb	3-4
Celery	lb	25	Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2
Colchicum.	lb	50	Caustic, purified, fused.....	lb	40
Colchicum, powd.	lb	55	Sal (carbonate) bbls., 1 1/4c.....	lb	3
Conium	lb	25	Soda Silicate, dry	lb	35
Coriander, German.	lb	14	Soda Silicate, liquid.....	lb	15-25
Coriander, German, powd	lb	20	SODIUM, 1-oz vials, M. C. W.....	oz	25
Cumin	lb	18-20	Acetate, M. C. W., carton.....	lb	17
Dill	lb	25	Arseniate, 1-oz vials.....	oz	9
Fennel.	lb	18	Arsenite, 1-oz vials, M. C. W.....	oz	10
Fennel, powd.	lb	20	Benzoate, 1-oz vials, M. C. W.....	oz	11
Flax, recleaned.	lb	5 1/2-6	Benzoate, 1-lb bots.	lb	56
Flax, ground.	lb	5 1/2-6	Benzoate, true fr. Gum Benzoin.....	oz	29
Flax Oil Cake	lb	2 1/2-3 1/2	Bicarbonate, C. P., powd., M. C. W.....	lb	15
Foenugreek, powd	lb	12	Bicarbonate, kegs, 3c.....	lb	4-5
Hemp, recleaned	lb	6 1/2-8	Bisulphite, dry, pure	lb	27
Henbane	lb	35	Borate, neutral	oz	19
Larkspur.	lb	55	Bromide, M. C. W.....	lb	32
Lobelia.....	lb	60	Cacodylate	oz	84
Lobelia, powd.	lb	65	Carbonate, pure cryst., 1-lb car., M. C. W..	lb	11
Millet, American.	lb	6-8	Carbonate, pure gran., 1-lb car., M. C. W..	lb	11
Mustard, black, Trieste	lb	10-12	Carbonate, dried, C. P., 1-lb car.....	lb	27
Mustard, white	lb	10-10	Cinnamate	oz	59
Poppy Blue	lb	16	Citrate, M. C. W.....	lb	67
Pumpkin	lb	22	Glycerophosphate, 75%	oz	24
Rape, California.	lb	6-8	Glycocholate.	oz	1 04
Quince	lb	1 10	Hypophosphite, purified	lb	1 14
Sabadilla	lb	35	Hypophosphite, 1-oz vials	oz	15
Sabadilla, powd	lb	30-35	Hyposulphite, 112-lb kegs.	lb	3
Stavesacre	lb	40	Hyposulphite, less	lb	5
Stavesacre, powd	lb	45	Iodide, 1-oz vials, M. C. W.....	oz	31
Stramonium	lb	25	Iodide, M. C. W.....	lb	3 53
Stramonium, powd	lb	30	Nitrate, cryst., C. P.....	lb	29
Sunflower	lb	15	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Watermelon	lb	25	Phosphate, pure, recryst., bulk.....	lb	12
Worm, American	lb	25	Phosphate, gran., pure, M. C. W.....	lb	13
Worm, American, powd	lb	25	Phosphate, dried, powd.....	lb	24
Worm, Levant	lb	35	Salicylate, 1-lb box, P. W. R.....	lb	50
Worm, Levant, powd	lb	40	Salicylate, 1-lb box, M. C. W.....	lb	50
SEIDLITZ MIXTURE	lb	28-30	Santoninate	oz	89
SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19	Succinate	oz	45
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, Glauber Salts.....	lb	3-5
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, dried	lb	18-20
Lactate	oz	1 04	Sulphite, crystals	lb	10
Nitrate, cryst., 1-oz vials, M. C. W.....	oz	52	Sulphite, granulated	lb	18
Nitrate, cones, 1-oz vials.....	oz	64	Sulphite, dry	lb	22
Nitrate, fused (Lunar caustic), 1-oz vials,			Tartrate	lb	64
M. C. W.	oz	55	SOLUTIONS, Donovan's	lb	34
Nitrate, cryst., 1-oz vials, P. W. R.....	oz	52	Fowler's	lb	30
Nitrate, cryst., 1-lb vials, P. W. R.....	lb	8 25	Goulard's	lb	35
Nitrate, fused, No. 2, 1-oz vials.....	lb	42	Nitrate, Iron	lb	50
SNUFF, Garrett's, 1-oz tins.....	doz	60	Mercury, Nitrate	oz	20
Garrett's, 1 1/3-oz tins.	doz	1 10	Moncel's	lb	50
Garrett's, 3 1/3-oz tins.....	doz	1 75	Tin, Chloride	lb	35
Garrett's, 6-oz bots.....	doz	3 25	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Somatose, Ferro, 2-oz tins.....	doz	10 50

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Somatose, 2-oz tins	doz	8 50	Sicily, ground.	lb	5
Somatose, 1 1/4-lb tins	lb	5 25	Strips	lb	15
Somatose, 1 1/2-lb tins	lb	5 00	Washed	lb	15
SOZOIODOL, Mercury	oz	1 15	SUMAC.	lb	10
Potassium	oz	75	SYRUP, Ginger, U. S. P.	lb	65
Sodium	oz	80	Hydriodic Acid	lb	70
Zinc	oz	1 10	Iron Iodide	lb	65
SPARTEINE, Sulphate, 1/8s.	oz	83	Ipecac	lb	60
Sulphate, 15-gr. vials.	ea	12	Lactucarium	lb	1 00
SPERMACETI, in cakes.	lb	42-45	Orange Peel	lb	65
SPIRIT, Ammonia	lb	75	Rhubarb	lb	60
Ammonia, aromatic.	lb	85	Rhubarb, Aromatic	lb	65
Camphor	lb	75	Rhubarb and Potash.	lb	65
Chloroform, U. S. P.	lb	75	Sarsaparilla	lb	65
Lavender	lb	60	Sarsaparilla, comp.	lb	65
Nitre, U. S. P., 1-lb bots.	lb	65	Senna	lb	65
Nitre, U. S. P., 4-lb bots.	lb	58	Senega, U. S. P.	lb	65
Nutmeg.	lb	75	Simple	lb	35
Pimento.	lb	65	Squill	lb	60
Rosemary.	lb	65	Squill, comp.	lb	60
STEARIN	lb	20	Stillingia, comp.	lb	60
STONE, Pumice, select.	lb	10	Tolu	lb	60
Pumice, select, powd.	lb	8-10	Wild Cherry	lb	60
Rotten	lb	12-15	Yerba Santa comp.	lb	65
Rotten, powd	lb	10	TALCUM, powdered	lb	6-8
Soap, cut	lb	18	Purified	lb	20-25
Soap, powd	lb	8	TAMARINDS, pound bottles.	lb	25
STRONTIUM, Bromide, cryst., M. C. W.	oz	11	Keg	ea	4 50
Carbonate, M. C. W.	lb	34	Pulp	lb	50
Hypophosphite, M. C. W.	oz	29	TANNALBIN.	oz	85
Iodide, 1-oz vials, M. C. W.	oz	28	TANNIN, 1-lb cartons, incl., Reg.	lb	85-90
Lactate	oz	16	Tannin, U. S. P.	lb	1 15
Muriate, M. C. W.	lb	32	TANNIGEN	oz	75
Nitrate, pure, dried	lb	59	TANNOFORM	oz	22
Salicylate, M. C. W.	lb	83	TANNOPINE	oz	75
Sulphate, M. C. W.	lb	69	Veterinary	oz	25
STYPTICIN	oz	6 50	TAR, Barbadoes	lb	25
STRYCHNINE, Acetate, 1/8-oz vials, M. C. W.	oz	1 75	Coal	gal	25
Arsenate, 1/8-oz vials, M. C. W.	oz	1 75	Pine, bulk	gal	40
Bromide, 1/8-oz vials, M. C. W.	oz	1 75	Pine, 1/2-lb cans.	doz	75
Citrate, 1/8-oz vials, M. C. W.	oz	1 75	Pine, 1-lb cans.	doz	90
Crystals, 1/8-oz vials, M. C. W.	oz	1 15	Pine, 2-lb cans.	doz	1 50
Hypophosphite, 1/8-oz vials, M. C. W.	oz	2 00	Pine, gal cans.	doz	6 00
Muriate, 1/8-oz vials, M. C. W.	oz	1 75	TARTAR EMETIC, M. C. W.	lb	50
Nitrate, 1/8-oz vials, M. C. W.	oz	1 75	TEREBENE, 1-lb bottles.	lb	79
Phosphate, 1/8-oz vials, M. C. W.	oz	1 80	.....	oz	14
Sulphate, 1/8-oz vials, M. C. W.	oz	1 45	TERPIN HYDRATE, cryst.	oz	9
Sulphate, 1-oz vials, M. C. W.	oz	1 25	Pounds	lb	55
Sulphate, 1-oz vials, P. W. R.	oz	1 25	TERPINOL, Liquid	oz	47
Crystals, 1-oz vials, N. Y. Q.	oz	95	THEOBROMINE, Alkaloid	oz	90
Crystals, in bulk, N. Y. Q.	oz	90	And Sodium Salicylate	oz	60
Powdered, in bulk, N. Y. Q.	oz	85	THIOL, dry	oz	1 00
Powdered, 1/8-oz vials, N. Y. Q.	oz	1 10	Liquid.	oz	40
Powdered, 1-oz vials, N. Y. Q.	oz	90	THYMOL, 1-oz vials	oz	26
STYRAX, liquid, ...	lb	60	Pounds	lb	3 10
SUGAR, burnt	lb	25	THYROIDIN	oz	1 30
Grape.	lb	25	TIN, Chloride	lb	53
Milk, crystals	lb	30	Metallic, feathered	lb	1 00
Milk, powd., bulk.	lb	23	Muriate, solution	lb	35
Milk, powd., M. C. W., 1-lb cartons.	lb	25	Oxide, white, pure	lb	99
SULFONAL, 1-oz vials.	oz	1 35	TINCTURE, Aconite Leaves.	lb	65
SULPHON-ETHYL-METHANE	oz	58	Aconite Root	lb	75
SULPHON-METHANE	oz	48	Aconite Root, Fleming's.	lb	90
SULPHUR, California, ground, 110-lb bags.	lb	2	Aloes	lb	65
Flowers	lb	5	Aloes and Myrrh.	lb	65
Flowers, in bags.	lb	2 1/4-3	Arnica	lb	65
Iodide	oz	38	Asafoetida	lb	65
Lac., precip.	lb	18	Belladonna	lb	65
Roll, bbl.	lb	2 1/4-5			

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Benzoin	lb	75	TRIONAL	oz	1 50
Benzoin, comp.....	lb	75	TRIPOLI, bulk	lb	8-12
Blood Root	lb	65	TURPENTINE	gal	95
Buchu	lb	65	In case	gal	90
Cantharides	lb	75	Chian	oz	45
Capsicum	lb	65	Venice	lb	35
Cardamom	lb	75	URANIUM, Acetate, 1-oz vials	oz	59
Cardamom, comp.....	lb	75	Chloride, 1-oz vials	oz	47
Catechu, comp.....	lb	75	Nitrate, 1-oz vials	oz	45
Cinchona, comp.....	lb	75	Sulphate, 1-oz vials	oz	47
Cinnamon	lb	65	UROTROPIN	oz	60
Colchicum Root	lb	75	Tablets, 20 in box.....	box	25
Colchicum Seed	lb	75	UNGUENTUM CREDE, ½-oz jars.....	oz	90
Columbo	lb	60	URETHANE	oz	54
Conium	lb	65	VANILLIN, 1-oz vials.....	oz	75
Cubebs	lb	65	VERATRINE, pure, ⅛-oz vials.....	oz	2 40
Digitalis	lb	65	VERONAL, powd.....	oz	1 60
Ergot	lb	75	Tablets, 10c.	ea	30
Ergot, ethereal	lb	80	Tablets, 100s	ea	2 25
Galls	lb	60	VERDIGRIS	lb	40
Gelsemium	lb	75	Powdered	lb	45
Gentian	lb	60	WATER, Cherry, Laurel.....	pt	50
Gentian, comp.....	lb	65	Chlorine	lb	40
Ginger	lb	65	Distilled.	gal	8
Guaiac	lb	75	Elder Flower	lb	50
Guaiac, ammoniated	lb	75	Orange Flower, triple.....	lb	35
Guaiac, Dewees'	lb	75	Orange Flower	gal	2 00
Hyoscyamus	lb	65	Orange Flower, Chiris, small.....	doz	2 00
Iodine.	lb	1 40	Orange Flower, Chiris, large.....	doz	3 75
Iodine, colorless.	lb	1 40	Rose, triple	lb	40
Iodine, comp.	lb	1 40	Rose	gal	2 00
Iodine, Churchill's.	lb	1 75	Rose, Chiris, 6¾-gal coppers.....	gal	1 75
Ipecac	lb	80	Rose, Chiris, small.....	doz	2 00
Iron Acetate	lb	65	Rose, Chiris, large.....	doz	4 00
Iron Chloride	lb	50	WAX, Bayberry	lb	45
Iron Citro-Chloride	lb	65	Bees, yellow, refined.	lb	37-40
Jalap	lb	65	Bees, yellow, oz.	lb	45
Kino	lb	75	Bees, white, extra.	lb	60
Lobelia	lb	60	Bees, white, No. 1.	lb	55
Lobelia, ethereal	lb	65	Bowdlear's 1-lb cartons	doz	4 20
Myrrh	lb	75	Fruit, can, red.....	lb	8
Myrrh and Capsicum.....	lb	75	Fruit, can, white	lb	8
Nux Vomica	lb	65	Japan	lb	18-20
Opium	lb	1 25	WAX, FLOOR	lb	25-38
Opium, camphorated	lb	60	Johnson's, 1-lb cartons.....	doz	4 00
Opium, deodorized	lb	1 30	Johnson's, ½-lb cartons.....	doz	2 25
Orange Peel	lb	65	Johnson's, ¼-lb cartons.....	doz	1 40
Quassia	lb	60	WHITING, Gilders'	lb	3
Rhatany	lb	60	Spanish	lb	2½
Red Saunders	lb	65	WINE, Antimony	lb	65
Rhubarb	lb	65	Aromatic	lb	65
Rhubarb, Aqueous	lb	60	Colchicum Root	lb	75
Rhubarb, Aromatic	lb	70	Colchicum Seed	lb	65
Rhubarb, comp.....	lb	65	Ergot	lb	1 25
Rhubarb, Sweet	lb	65	Ipecac	lb	1 25
Rhubarb and Aloes.....	lb	65	WOOD, Brazil, ground.....	lb	10
Rhubarb and Senna.....	lb	65	Camwood	lb	10
Senna	lb	65	Fustic, cut	lb	3½-5
Senna, comp.....	lb	65	Fustic, ground	lb	6
Serpentaria	lb	65	Guaiac, rasped	lb	10
Stramonium Leaves	lb	65	Hypernic.	lb	8-10
Stramonium Seed	lb	65	Logwood, chip.	lb	8-10
Strophanthus	lb	1 25	Logwood, ground.	lb	8-10
Tolu	lb	75	Nic.	lb	8-10
Valerian	lb	65	Quassia, chip.	lb	15
Valerian, ammoniated	lb	85	Quassia, ground.	lb	18
Veratrum Viride	lb	65	Quassia, powdered.	lb	18
Warburg's	lb	1 75	Red Sanders, ground.	lb	12
TRIKRESOL, S. & G.....	lb	60	Red, cut.	lb	10
TRIMETHYLAMINE	oz	55			

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XANTHOXYLIN, Keith's	oz	1	13	Apollinaris, 50 qt bots in case.....	8 50	2 25
XYLOL	lb	70		Apollinaris, pints.	12 00	1 60
ZINC, Acetate, 1-lb bottles, M. C. W.....	lb	43		Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Benzoate	oz	24		Bartlett, 50 qt. bots. in case.....	8 00	2 25
Benzoate, 1-oz vials, M. C. W.....	oz	24		Bethesda, 50 qt. bots. in case.....	7 50	2 25
Carbolate, 1-oz vials, M. C. W.....	oz	24		Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Carbonate, precipitate, 1-lb cartons.....	lb	25		Bythia Water	10 00	2 50
Chloride, fused, 1-oz vials	oz	13		Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Chloride, granulated	lb	33		Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Cyanide, 1-oz vials, M. C. W.....	oz	21		Congress (Saratoga), 48 bots. in case..	8 00	2 50
Hypophosphite, 1-oz vials	oz	29		Franz Joseph, 50 bots. in case.....	11 00	3 00
Iodide, 1-oz vials, M. C. W.....	oz	35		Garrod Spa Lithia, pints.....	6 00	2 00
Metallic, pure, feathered.....	lb	27		Garrod Spa, Lithia, ½-gal.....	....	5 00
Oxide, English, Hubbuck's.	lb	50		Hathorn, 48 pt. bots. in case.....	8 00	2 50
Oxide, pure, M.C.W.	lb	30		Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Permanganate	oz	52		Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Phosphate, M. C. W.....	oz	10		Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Phosphide	oz	23		Londonderry Lithia, ½ gallons.....	9 50	6 50
Sulphate, cryst.....	lb	8-10		Londonderry Lithia, 100 pints.....	13 50	1 75
Sulphate, cryst., chemically pure, M.C.W..	lb	18		Poland, qts. ....	....	5 00
Sulphide, 1-oz vials, M. C. W.....	oz	16		Rackoczy Kissengen .....	....	5 00
Sulphocarbolate, M. C. W.....	lb	59		Red Raven Splits.	5 00	1 35
Sulphocarbolate, 1-oz vials, M. C. W....	oz	11		Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Sulphate, H. P.	lb	15		Veronica .....	....	5 50
Sulphate, dried, H. P.....	lb	25		Vichy Water Celestine	10 25	3 00
Sulphocarbolate	oz	10		Risk of breakage is assumed by buyer.		
				Villacabras Water. qts., 50 bots. in case	17 50	4 50
				Witter, 36 bots in case.....	12 00	4 50
				White Rock Splits.	9 90	1 20
				White Rock, pints	11 50	1 50
				White Rock, quarts.	8 85	2 25

MINERAL WATERS.

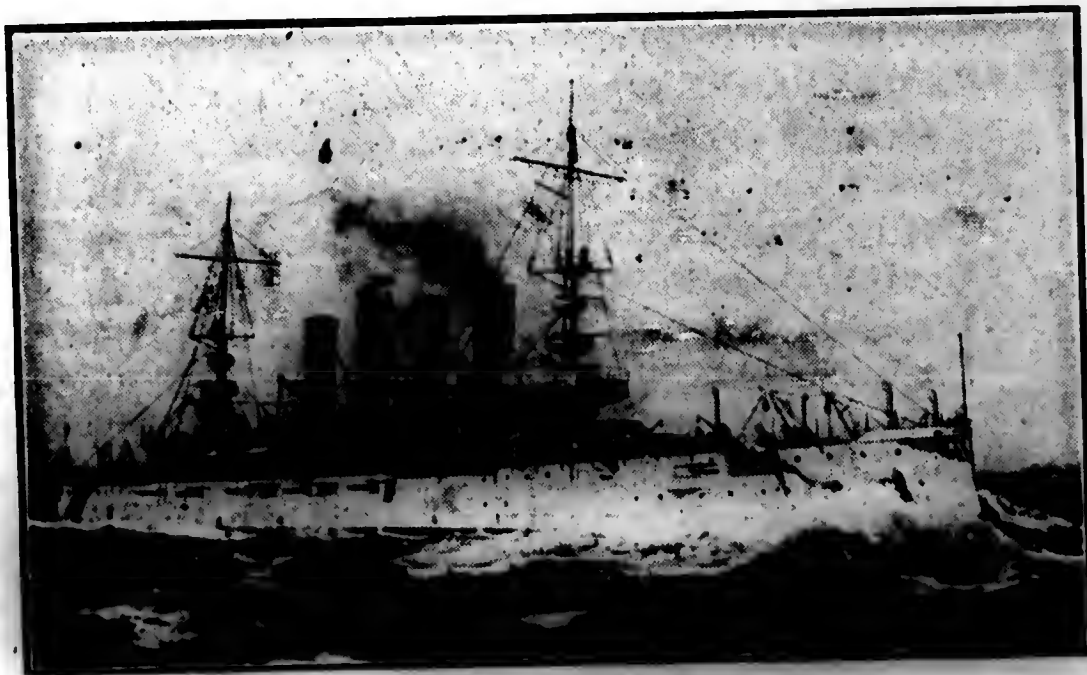
	Case	Dozen
Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65

(Cash discount 5% on case prices White Rock.)

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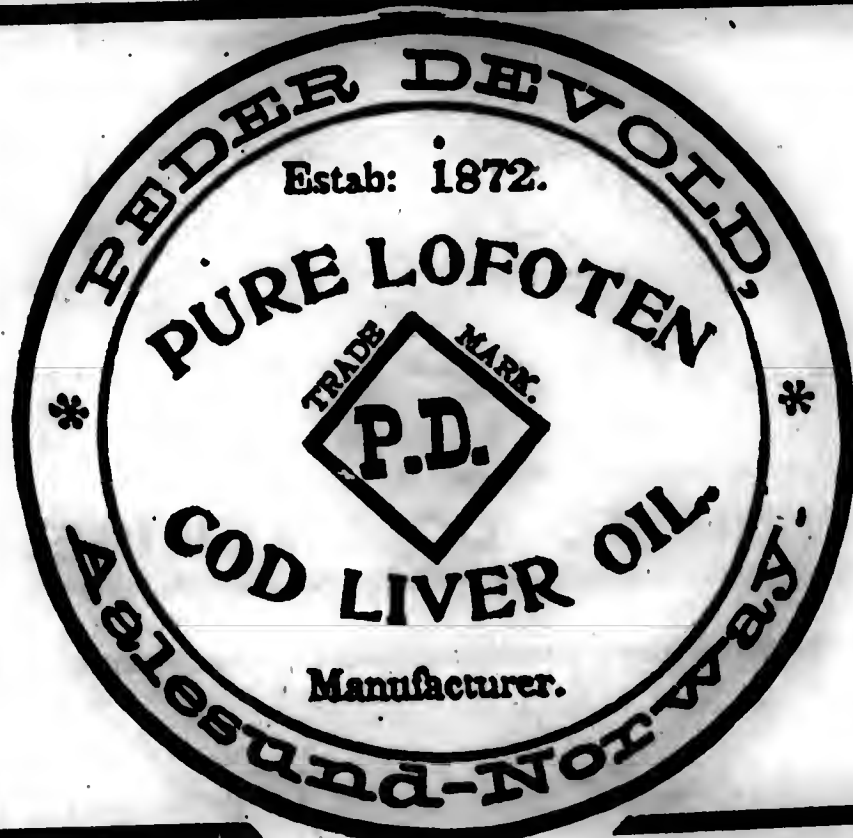
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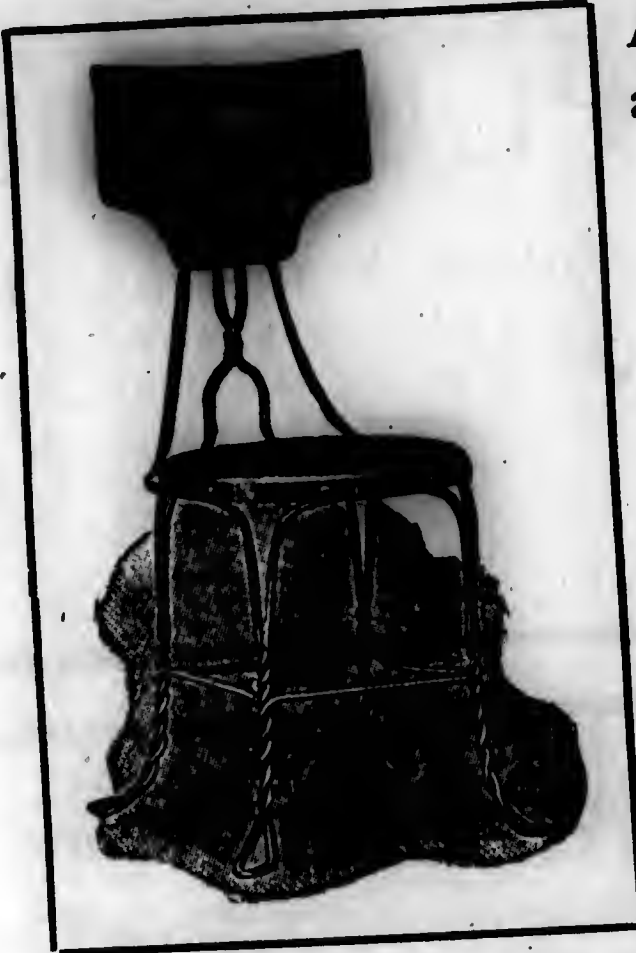
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nations; second, Doctor of Pharmacy, after two full courses of lectures subsequent to
three years' practical experience in Pharmacy.

For announcements and further information, address

D. A. HODGHEAD, Dean,
College of Physicians and Surgeons,
344 Fourteenth Street,
San Francisco, Cal.

To the Druggists of the U. S.

For several years past we have had printed upon the face of our cartons, as well as in our newspaper advertisements, the fact that in the manufacture of our laxative we use senna as well as figs, and we have now decided, in order to make the name more fully descriptive of the remedy, to add to the name Syrup of Figs the words "and Elixir of Senna." The trade and the public will doubtless continue to call for the remedy by the original and shorter name of Syrup of Figs, but hereafter its full official title will be, as printed upon our labels and cartons, "Syrup of Figs and Elixir of Senna."

Our "general guaranty" has been filed with the Secretary of Agriculture and will fully protect the trade in the sale of our remedy, as we will comply with all the requirements of the Food and Drugs Act of June 30, 1906.

Yours very truly,

California Fig Syrup Co.

San Francisco, Cal.

Louisville, Ky.

New York, N. Y.

TYREE'S POWDER

This Antiseptic Powder is extensively advertised in all the leading medical journals, and druggists should be prepared to supply the growing demand.

Put in 25c and \$1.00 Packages at \$2.00 and \$8.00 per Dozen

No. 674 Guaranteed under the Food and Drugs Act, June 30, 1906

TYREE'S LITMUS PENCIL

is chemically pure red and blue litmus in a small, handsome metal pocket pencil. A piece of best litmus paper made at a moment's notice. Invaluable for photographers, physicians, analytical chemists and druggists.

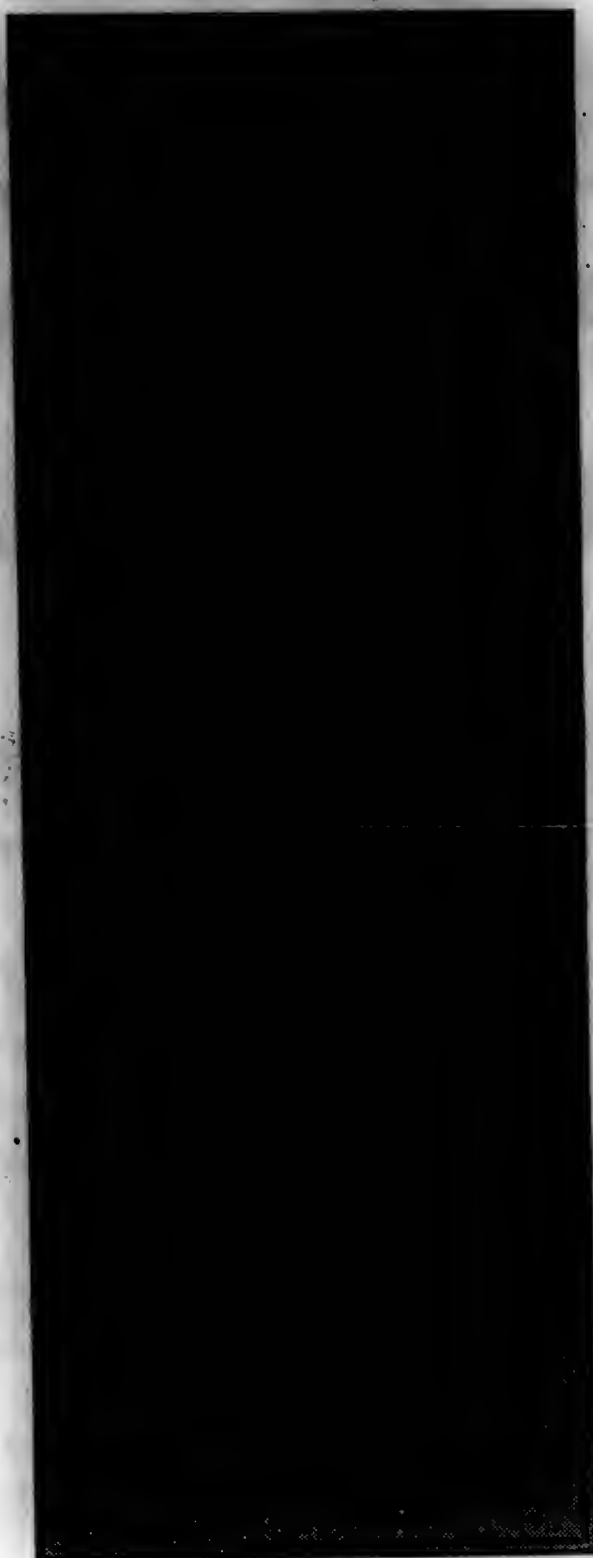
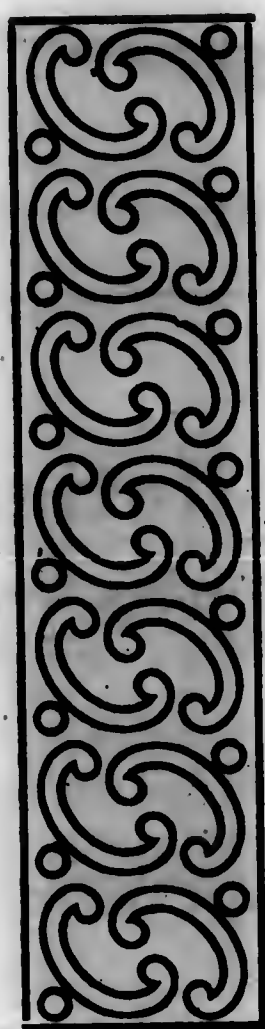
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THE BEST INTENSIFIER

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A Counter Display Card showing one half of a negative intensified is sent with each dozen. This preparation is the only medium by which many otherwise useless negatives may be intensified so that perfect prints can be made from them.

THE COUNTER DISPLAY CARD SELLS IT

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KIRK, GEARY & CO.
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For several years past we have had printed upon the face of our cartons, as well as in our newspaper advertisements, the fact that in the manufacture of our laxative we use senna as well as figs, and we have now decided, in order to make the name more fully descriptive of the remedy, to add to the name Syrup of Figs the words "and Elixir of Senna." The trade and the public will doubtless continue to call for the remedy by the original and shorter name of Syrup of Figs, but hereafter its full official title will be, as printed upon our labels and cartons, "Syrup of Figs and Elixir of Senna."

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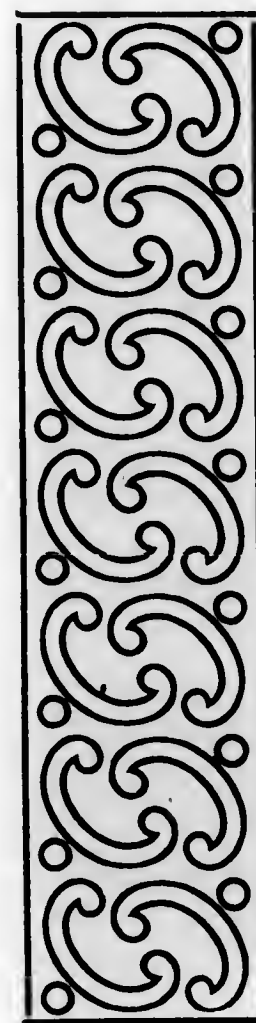
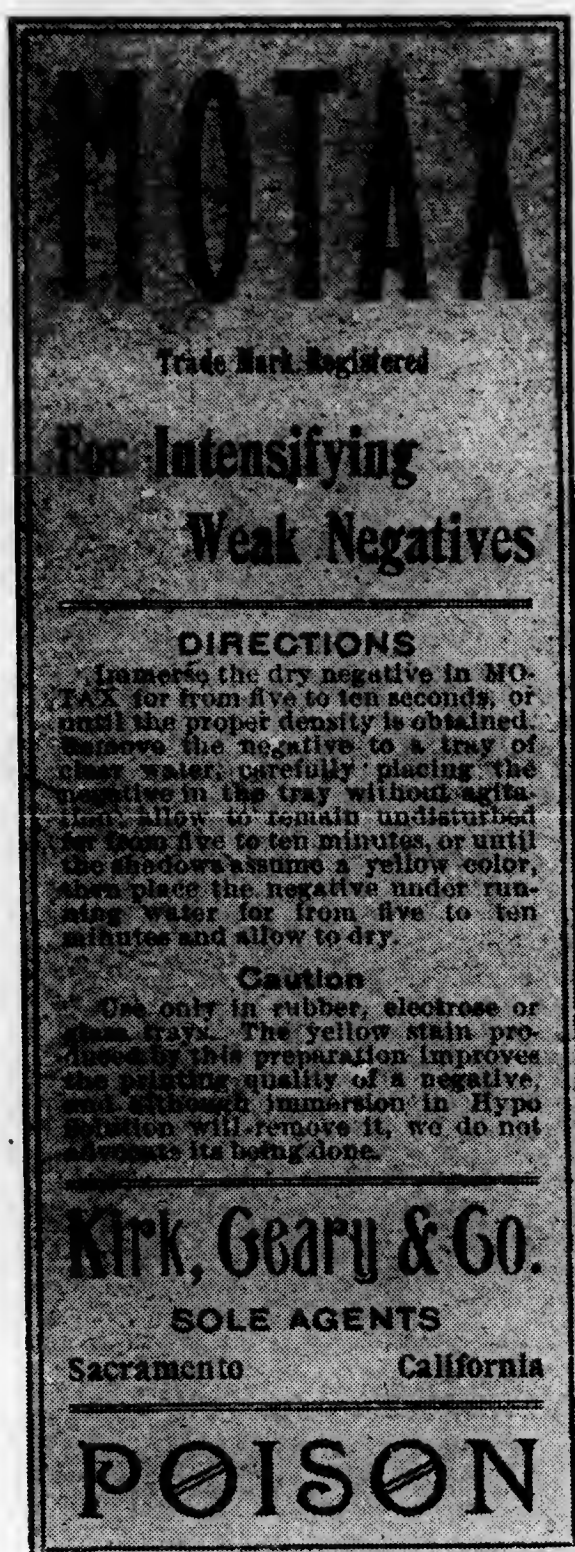
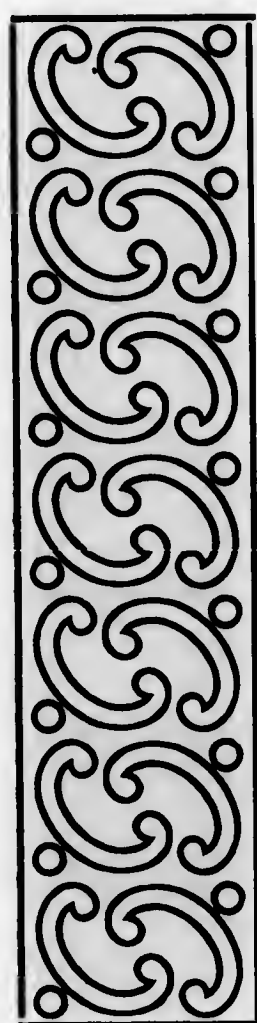
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Can enter upon any of the courses, on giving evidence that they are able to carry on the work.

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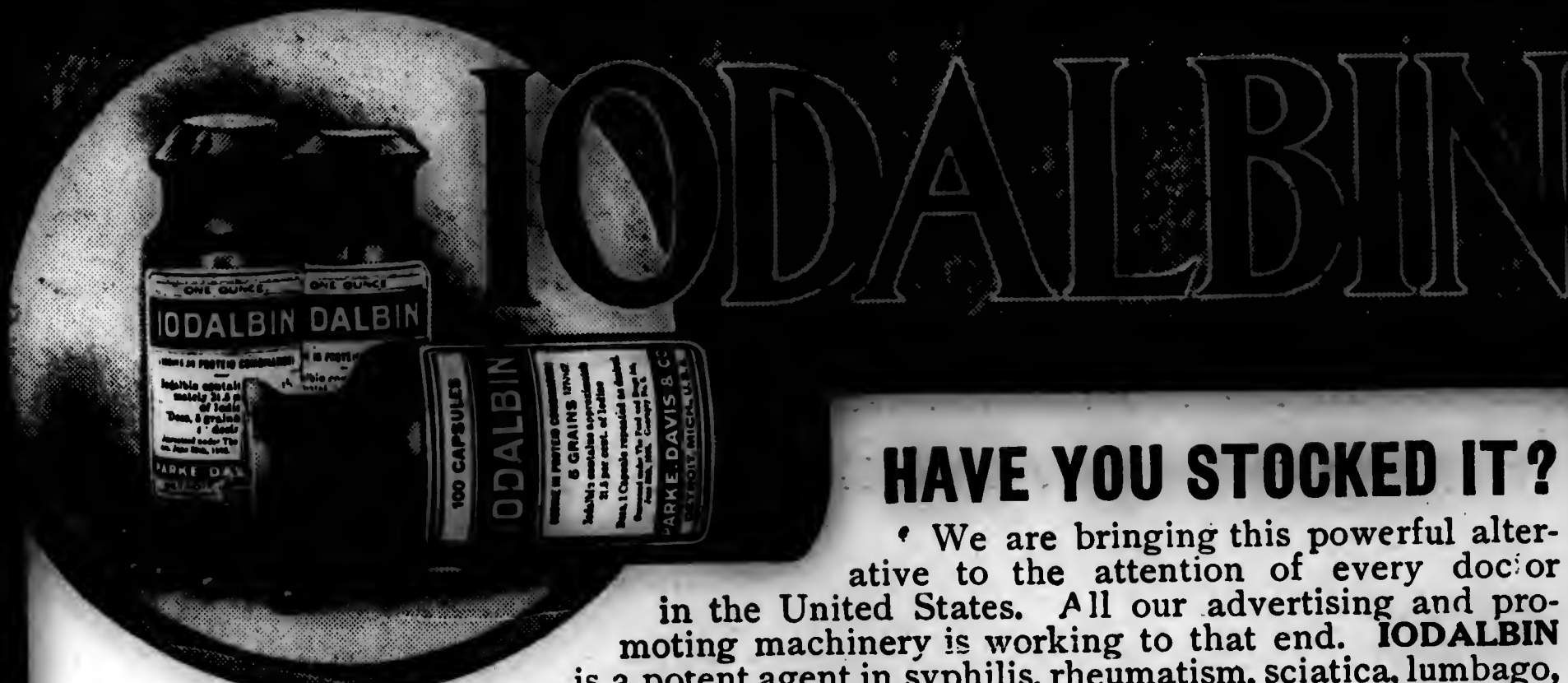
First Year—Matriculation Fee, \$5.00. All other expenses, about \$115.00.

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We are bringing this powerful alternative to the attention of every doctor in the United States. All our advertising and promoting machinery is working to that end. IODALBIN is a potent agent in syphilis, rheumatism, sciatica, lumbago, etc.; it has important advantages over potassium iodide—and these facts are being made known to physicians.

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Capsules, bottles of 100, per bottle, \$0.85. Powder, ounce vials per vial, \$0.75.

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In ten minutes, under proper conditions, TAKA-DIASTASE will digest 150 times its weight of starch. No other diastase is so powerful and efficient.

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In the treatment of amylaceous dyspepsia (and it is said that 75 per cent. of all cases of indigestion are of the starchy variety) TAKA-DIASTASE is the mainstay of many physicians. Every druggist should have it in stock.



Consult our Price List (Part 2, Specialties) for full line of Taka-Diastase preparations.

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ST. PETERSBURG, RUSSIA; BOMBAY, INDIA; TOKIO, JAPAN;

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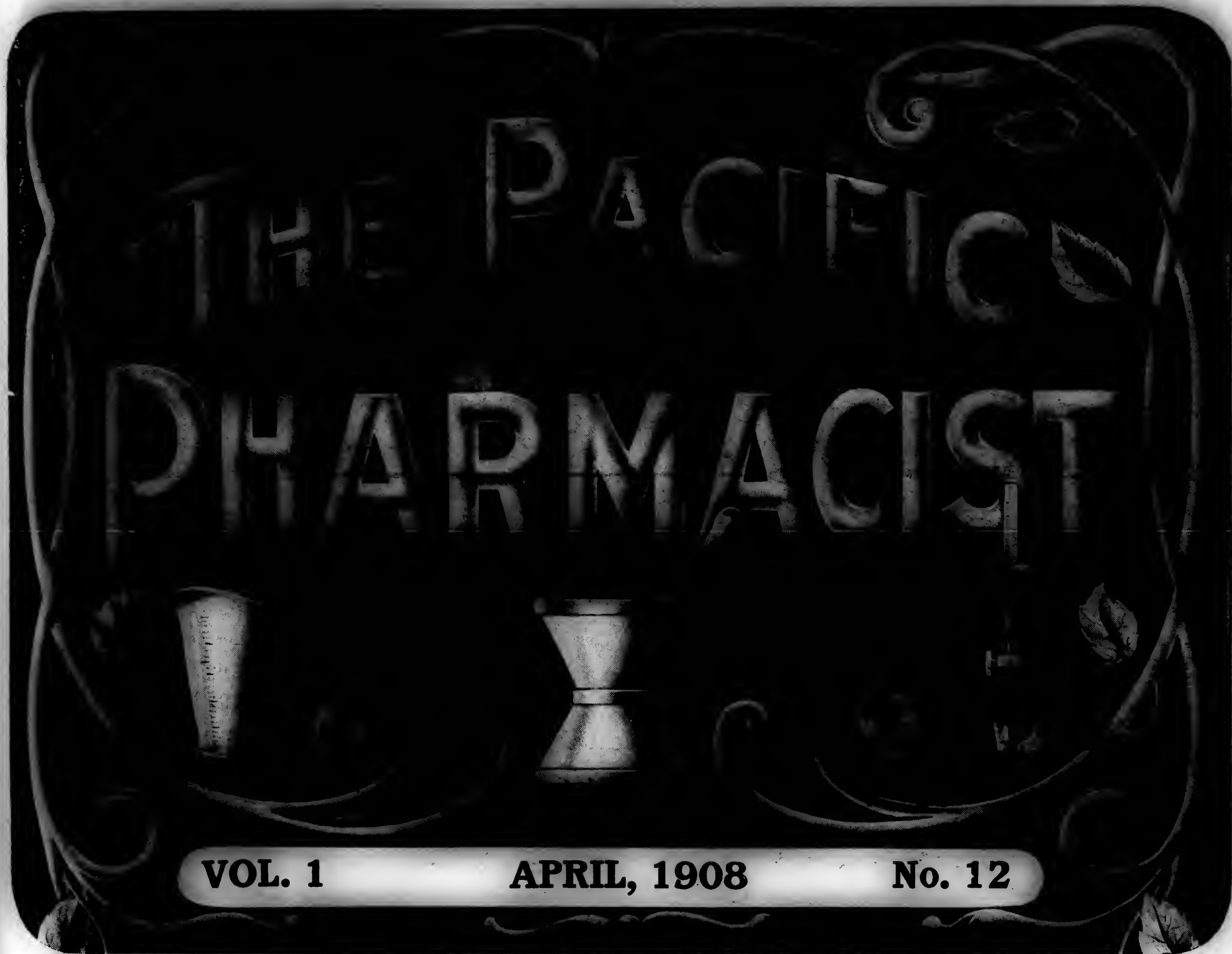
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 Meeting Every Official Requirement
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 times, it would seem logical
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 CHEMICAL WORKS, LTD.
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Morphine
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You Serve { Your Own Interests
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Discount 33 1/3 per cent. (Special 40 per cent. on \$50.00 (list) lots)

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Seasonable Goods

Carmel Sea Salt - 2 and 5lb. cartons
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HANDSOME SIGN WITH GROSS ORDERS.

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Handsome finish---
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Superior Cold Cream Quality and largest
package on the market
for the money.
Ask for prices.

Promptness in filling orders always.

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San Francisco

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Liquid Peptonoids
 Dry Peptonoids Soluble
 Liquid Peptonoids cum Creosote
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Preparations of merit, marketed only
 through the drug trade under con-
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 and which therefore should receive
 his hearty support.

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Stick Licorice
Powd. Extracts
and Powd. Root
in convenient packages for
the trade



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Coast Trade Supplied by our San Francisco Agents

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Santa Marina Building

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*Canadian orders filled at our Montreal factory, which will be in
operation about May 1st*

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Primary substances of the cells of the body, containing the true Nucleins.

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Nucleo-enzymes of all the glands that aid digestion.

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Physiologically prepared ox-bile and Nucleo-enzymes of the Pancreas. For Intestinal Indigestion and Habitual Constipation; also as a Cholagogue.

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A pure milk infants' food and perfect equivalent for mother's milk.

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A milk and cereal food for infants, invalids and dyspeptics.

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For Rheumatism and Gouty Diathesis.

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A tonic and nerve-stimulant.

ZYMOCID

A colorless, non-poisonous liquid antiseptic.

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In Use Seventeen Years

This Trade-Mark is the Property of

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New York

EUSOMA

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\$9.00 per doz.

Eusoma Ointment.....\$2.00 per doz.
Iodan, 10 per cent Solution..... 6.00 " "
Iodan Capsules, 10 minim (2½ gr. Iodine) 7.00 " "
Iodan Capsules, 5 minim (1¼ gr. Iodine) 6.50 " "
Mercuran Capsules 6.00 " "

Are high-class prescription specialties extensively advertised to
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The Eusoma Pharmaceutical Co.

CINCINNATI, OHIO., U. S. A.

LANGLEY & MICHAELS CO., San Francisco, Pacific Coast Depot

ANESTHETICANALGESIC

TRADE

H.M.C.

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ANTISPASMODICHYPNOTIC

AN UNQUALIFIED SUCCESS

Used by Physicians Everywhere

Be Sure that You are in Stock

SUBSTITUTES ARE DANGEROUS
HYOSCINE, MORPHINE, and CACTIN COMP. (ABBOTT)

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C. P. Hyoscine Hydrobromide

gr. 1-100

Tube of 25

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C. P. Morphine Hydrobromide

gr. 1-4

Per 100, 4 tubes

1.55

Cactin, A. A. Co., (from Cactus Grandiflorus)

gr. 1-67

Bottle of 100 (bulk)

1.50

Half strength of above (the use of which we recommend): 25c, 30c; 4 tubes, \$1.15; 100 (bulk) \$1.10.

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251 Fifth Ave., cor. 28th St., New York 325 Pacific Block, Seattle, Wash. 1361 Franklin St., Oakland, Cal.

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Fellows' Syrup

Important Notice

This is to remind you that most sales of FELLOWS' SYRUP OF HYPOPHOSPHITES are made on physicians' prescriptions, in which case the profit to the retail druggist is nearly 100 per cent.

This means that the physician sends you a desirable customer; and the least you can do is to treat him fairly, and supply the preparation prescribed—Fellows' Syrup.

Members of the retail drug trade are warned against buying or selling colorable imitations of the well-known yellow-wrapped package of Fellows' Syrup. The highest courts have decided that such an act is an infringement of the Trade-mark Law, and makes the offender liable to a suit for damages.

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is that feature of every well-regulated pharmacy which should be brought to the highest degree of efficiency. "M. C. W." chemicals have long been preferred by critical dispensers, which fact we regard as being a special recognition of their high standard of excellence. No pharmacist can offer physicians better evidence as to the careful equipment of his dispensing department than to carry a full line of "M. C. W." chemicals.

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Do any of your customers want a more pleasant laxative than pills, castor oil, epsom salt—or anything else?

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EXTRACT—

one of the best advertised and read-
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A PROFIT OF 65%

Case and cost small enough
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78 Hudson Street (Dept.), NEW YORK CITY



GUARANTEED!

THE new Pure Food and Drugs Act requires all manufacturers to sell their products under a guaranty, and a general guaranty should be filed in the office of the Secretary of Agriculture at Washington.

The following is a copy of a letter issued from the Department of Agriculture to us:

DEPARTMENT OF AGRICULTURE
Office of the Secretary
WASHINGTON

November 1, 1906.

*The Antikamnia Chemical Company,
St. Louis, Mo.*

Gentlemen:—

Your guarantee as to the character of the materials manufactured and sold by you, given in accordance with Circular 21 of this office, has been received, found to be in proper form and is regularly filed. The serial number attached thereto is No. 10.

Respectfully,

W. M. HAYS, Act. Sec'y.

All Antikamnia Preparations are sold under this guaranty and our Serial No. 10 appears on every package sold under the new law, thus assuring the retail drug trade of the absolute reliability of these pharmaceuticals.

The Antikamnia Chemical Co., St. Louis, Mo., U.S.A.

Cela Kut Liquid Court Plaster Is 90 Per Cent ANTISEPTIC

**COLORLESS AND
WATERPROOF
PUT UP IN TUBES
SEALED**

Cap and Foot with an impervious, rubber like preparation that **prevents Evaporation**. This adheres to the cap, and its protective qualities are not destroyed in opening the tube. Tubes are mounted on handsome scarlet and white display card.

CELA-KUT IS

the best and most convenient packaged preparation of its kind. 60 cents dozen. Postal will bring sample. Your jobber or

Lee Chemical Mfg. Company

Detroit, Michigan

Guaranteed

Serial No. 2254

FAIRCHILD'S ESSENCE OF PEPSINE

First and Best

The original Essence of Pepsine—Fairchild's, 1879—is an extract of the gastric juice, radically unlike the "essences" made from pepsin, and of superior efficiency in therapeutics.

The peculiarly valuable properties of Fairchild's Essence, derived directly from the gastric juice, are especially appreciated by physicians.

Fairchild's was the first, and is the best, Essence of Pepsine.

**FAIRCHILD BROS., & FOSTER
NEW YORK**

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ALWAYS SPECIFY

GLENN'S SULPHUR SOAP

the original and best combination of its kind and see to it that your jobber does not substitute an inferior brand.

Diamond Dyes Are the **"Steady Profit" Kind**

You don't order a big consignment of chest protectors on the first of July, or a large stock of spring tonic in December.

Such things depend upon the seasons for their sale.

But Diamond Dyes have no season. Just as many Summer gowns are dyed as Winter overcoats.

And Diamond Dyes dye them all.

Let us hear from you if your stock needs replenishing.

Keep your stock up or you'll miss sales.

Recommend Diamond Dyes to Your Customers. They Will Thank You for It.

WELLS & RICHARDSON CO., - - BURLINGTON, VERMONT

THE Pacific Pharmacist

Official Organ of the California Pharmaceutical Association

AN INDEPENDENT JOURNAL DEVOTED TO SCIENTIFIC PHARMACY AND
THE INTERESTS OF THE DRUG TRADE

Entered as second-class matter September 30, 1907, at the postoffice at San Francisco, California, under the Act of Congress of March 3, 1879.

Vol. 1

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Address all communications and make all checks and money orders payable to THE PACIFIC PHARMACIST.

Communications on questions pertaining to Pharmacy and the Drug Business are solicited. The name of the writer should accompany every article, not necessarily for publication, but as a guarantee of good faith.

No attention will be paid to anonymous articles. Stamps should be enclosed if rejected communications are desired returned.

**NOTE—The office of the Pacific Pharmacist has been removed to
723-728 Pacific Building, 4th and Market Streets**

Editorial Notes

OUR FIRST MILESTONE With this issue The Pacific Pharmacist completes the first year of its publication. This is a good time to look back over the past and take note of its shortcomings; to peer into the future, and take account of its difficulties; and then dispassionately ask ourselves "Was it worth while?"

We entered upon the publication of this journal in the belief that it was wanted. There seemed to be need of a journal conducted on pharmaceutical lines, that should represent the views, the feelings and the interests of pharmacists in California and the other Pacific Coast States. An editor-in-chief

was selected whose experience in pharmacy extended over half a century, during which time he had been continuously engaged in business as a druggist, and had also served many years as a teacher of pharmacy, member of Boards of Pharmacy, and as editor of a pharmaceutical journal; and other men of ample pharmaceutical experience and well-known ability were selected as associate and assistant editors. Was the enterprise judiciously launched?

Cui Bono? Naturally we have been anxious to know how our journalistic venture was received. Our

reception was far more hearty than we dared to hope for, much less expect. Modesty forbids us to reproduce all the nice things our readers have written to us, but the expressions on the whole have been most appreciative. And we take this opportunity of acknowledging the many kind words that have come to us in this way. We wish also to thank the druggists of California, in particular, for the general response to our appeal for subscriptions, so that our success in this respect is greater than we had expected. So far, therefore, as relates to our readers, we say very heartily, "It was worth while."

Our Advertisers But how about our advertisers? Have they met the new demand? In reply to this query we refer to our advertising pages, where will be found many representatives of the very elect—the most careful, conservative, eclectic firms, whose business standing is of the highest, and who do not advertise indiscriminately. This department of our business is steadily growing, notwithstanding the financial stringency which led many firms to curtail their advertising, and even in some cases to temporarily discontinue it altogether. With many thanks to those who have favored us with a share of their advertising business, we say that from the point of advertising "It was worth while."

There is, however, one favor which we would ask of our readers in connection with this subject. Just as we are anxious that our subscribers who help us financially with their subscriptions should be benefited by the perusal of this journal, so are we anxious that our advertisers, who also give us very material financial aid, should in like manner profit by the use they make of our

pages. Now we know many of our subscribers would really like to help us in the publication of this journal. They cannot give us more effective assistance than by patronizing our advertisers, and we ask them to do this whenever they can.

Our Contributors There is still another class of persons whom we have had in mind from the inception of this enterprise—our contributors. We knew from experience that a pharmaceutical journal published in a State where there are hundreds of graduated pharmacists would call forth contributions from the pens of some who would not send their articles to a trans-continental journal. We therefore expected that some of these would be willing to contribute of their experience to a local publication. While the response to our efforts to develop local talent and to be its mouthpiece has not been so great as it might have been, yet the good work has been going on and is in a fair way to a richer fruition. A reference to our copious **Index** will show that not a single number has yet appeared without some original matter from a Pacific Coast writer, and the indications are that these will increase in numbers and value. One who gave his life for humanity said, "It is more blessed to give than to receive," and we feel sure our contributors in the long run—perhaps not in every individual instance—gain largely themselves by what they give to others through our columns. So, for our contributors' sakes, it was "worth while."

Our Exchanges No journal wants to live without the respect and to some considerable extent the good-will of its contemporaries. In this respect **The Pacific Pharmacist** has been fortunate. Our exchanges have given us a generous reception. Only

kind and complimentary words have come from any of them, and we are grateful for this recognition.

Summary After all that has been said above, we shall, we trust, be pardoned if we indulge in a little self-gratulation at the result of our year's work. We have tried to serve the druggists of the Coast, to watch their interests as business men and as pharmacists. We are trying to evoke the dormant talent hereabouts and to keep it from being lost in "innocuous (?) desuetude." In these ways we believe we are benefiting the entire drug trade of the Coast, and if we can do this while receiving an adequate support from subscribers and advertisers, we shall say "It was worth while."

MAY 19th, 20th and 21st. These are to be red letter days. Don't make any appointments that will interfere with your attending the California Pharmaceutical Association and the Pacific Pharmaceutical Association meetings on those days. This will be no ordinary gathering. Our Oakland friends have planned to give the State Association the biggest kind of a boost. They are tired of the condition of things that have kept this great State with its varied interests and attractions from having once a year a good live turn out, such as they have in every other State in the Union. The time is ripe for the introduction of the new order, in which mutual helpfulness and consideration will play a larger part than in the past. The Oaklanders will give us a warm welcome and a very hospitable entertainment. Let the attendance be worthy of their open-handed hospitality.

ARMY PHARMACISTS AS COMMISSIONED OFFICERS

A bill has been introduced into the Senate and House of Representatives, respectively, "for the reorganization of the Army Medical Department." It is Senate Bill 6001. It provides for some radical changes in the organization of the Medical Department, and also for the establishment of a department of pharmacy, and defined the duties of these officers. Section 6, which relates to this portion of the bill, reads as follows:

"That there shall be established a department of pharmacy with a commissioned officer at the head, who shall rank as colonel, and with such number of commissioned subordinates with rank of majors, captains, and lieutenants as may be determined by the chief of the Medical Corps and the Secretary of War, all of whom must be graduates of some recognized college of pharmacy. This department shall be charged with the purchase and distribution of all medical and hospital supplies; the care, preservation, and preparation of medicine, dressings, books, and appliances, and the sterilization and care of all instruments. It shall also be charged with the clerical work, the maintenance of records and correspondence relating to hospitals and their inmates, the rendering of returns, reports, and records pertaining to the sick and wounded."

This recognition of pharmacists by including them with the commissioned officers is one which the American Pharmaceutical Association has for years been endeavoring to obtain. Whether it will be possible to secure the passage of this measure in the present session is doubtful, as some of its provisions dealing with army matters are likely to be opposed by present high functionaries. But it is a good thing to get the question before Congress and the people. This reform must come some day. Until it does, the U. S. Army will be shunned by the brightest of our young pharmacists,

because it offers no inducements to them either in the way of compensation or social position. The bill has been referred to the Committee on Military Affairs.

PHARMACISTS IN THE FLEET

Before our next issue appears, the fleet will be with us. Arrangements are being made by our citizens to give all, officers and men, a royal reception. Decorations, parades, illuminations, banquets, and every means known to man, will be employed to show the jackies that we are glad to see them and want them to carry away pleasant recollections of their visit. In addition to these general festivities, the pharmacists of San Francisco and the bay counties are anxious to entertain the pharmacists of the fleet in such way as circumstances will permit. At the present writing it is impossible to find out whether these men can obtain the necessary shore leave on the same day, or even to obtain a list of their names. But every effort will be made to show them some attention, and we hope these efforts will be successful.

PHARMACISTS IN THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE

Pharmacists in the Government employ are not receiving either the compensation or recognition which they ought to have. Congressman Hepburn has introduced a bill (H. R. 18794) "to promote the efficiency of the Public Health and Marine Hospital Service," which, if passed, will put the medical officers of this service on the same footing as regards pay, allowance (including longevity), leave of absence and waiting orders as are allowed in the army. But the bill

makes no provision whatever for an improvement in any of these respects of the condition of the pharmacists. An effort is being made to remedy this serious omission by amending Section 3 to read as follows (the words enclosed in brackets constitute the amendment):

"Sec 3. That the officers in charge of the divisions of zoology, pharmacology, and chemistry, in the Hygienic Laboratory (and the pharmacists of the Public Health and Marine Hospital Service) shall be entitled to leaves of absence and waiting orders as now allowed by law and regulations to commissioned officers of the Service, and their pay, and allowance of longevity, and commutation shall be the same as those received by professors of the Military Academy at West Point. The division of pathology and bacteriology shall be in charge of a commissioned medical officer, as now provided by regulation."

This amendment ought to pass. The government pharmacists demand a proper recognition of their profession, and those in the P. H. and Marine Hospital Service should be provided for in the same manner as the doctors, zoologists, pharmacologists and chemists. Now is the time for action. Pharmacists should bring pressure to bear on their Senators and Congressmen to induce them to attend to the matter and remedy a great injustice.

PHARMACY AFFAIRS IN CUBA

The difficulty between the Cuban pharmacists and Provisional Governor Magoon were not settled on the date of our last letter from Havana, received a few days ago. Just what the situation is we are unable to say, but it appears that Governor Magoon has suspended his decree recognizing the "Practicos" until after his return from Washington. In the meantime a commission has been appointed to inquire into the matter, and to report

their findings. This commission consists of three pharmacists and four members from the University of Havana. Both parties have been instructed to demand.

(1) The complete withdrawal of the Decree of December 31.

(2) The maintenance in all its integrity of the existing system of study at the School of Pharmacy, which system alone can form the true basis of professional competency.

(3) The absolute fulfillment of the laws regulating the exercise of pharmacy and the severe punishment of all infractions.

It remains to be seen whether Governor Magoon will agree to these demands. He will probably insist upon some measures that shall do away with the crying evils which his decree was intended to accomplish, viz.: first, the renting of their names by "regentes" (i. e., graduated and licensed pharmacists) who give no attention to the business conducted in their names; and secondly, the conducting of pharmacies by "practicos" without sufficient education and knowledge.

Our Cuban correspondent says that the graduated pharmacists object to the decree of Governor Magoon, in that it permits men of little or almost no preliminary education and pharmaceutical training to conduct and own pharmacies after passing an examination that is quite inadequate to test their knowledge. It appears that there is also a feeling that the examinations can hardly be impartial owing to the business and personal relations of some of the examiners. Furthermore, it is alleged that bogus certificates as to the amount of experience candidates have had in pharmacy are accepted without proper scrutiny, and that some who are book-keepers, etc., doing no pharmacy, are among the candidates. It would seem as if it ought to be possible to remedy

these abuses without breaking down the whole fabric of pharmaceutical education in Cuba, and we hope our next advices will tell of some wise, conservative action being agreed upon by the Governor, the reputable pharmacists and the University.

DEATH OF J. G. TANNER

We deeply regret to chronicle the death of J. G. Tanner, a pioneer druggist of Santa Cruz, which took place suddenly on March 27th. We understand that his health had not been good for some time, but his demise at this time was quite unexpected. He collapsed at the breakfast table that morning, and remained in a semi-unconscious state until 1:45, when he passed away. It is said Mr. Tanner never fully recovered from the shock of Major McLaughlin's tragedy, the family having been his very close friends. In the death of Mr. Tanner we have lost a friend, the drug trade a worthy member, his city and State a valuable citizen.

A. E. EBERT

The California College of Pharmacy has received the portrait of the late Dr. Albert Ebert, presented by the U. S. P. trustees. In honor of the event, the directors, faculty and students were assembled in the lecture hall of the college and attention was called to the life and labors of Mr. Ebert by Professors A. Schneider and W. M. Searby, to whom he was well known.

PROHIBITION AND ALCOHOL FOR PHARMACEUTICAL USES

Prohibition has been making immense strides the last few years, and is now the law of the land in a number of the States, and in extensive portions of other States, especially in

the rural districts. Backed by the strong prohibition sentiment, a bill has been introduced into Congress by Representative Acheson of Pennsylvania which absolutely **prohibits interstate transportation of all intoxicating liquors**. This bill, if it should become law, would not only prevent intoxicating beverages from passing through prohibition territory, but would also shut out alcohol intended for the manufacture of chemicals and pharmaceuticals. An effort is being made to get a clause inserted into the bill providing that "nothing in the act shall interfere with the shipment or delivery of pure alcohol to wholesale or retail druggists or to pharmaceutical or other manufacturers who, under the laws of the State into which alcohol is shipped, are authorized to purchase or sell such alcohol for use in the manufacture of drugs, medicines or pharmaceutical supplies." It is to be hoped that this modification will become a part of the bill, should it become law.

STATE ASSOCIATION MEETING IN MAY On page 619 will be found an outline of the entertainments being arranged by the local committee. That the meetings will be both profitable and enjoyable, is now fully assured. It is also certain that there will be a good attendance, but the committee is determined to make this a memorable meeting in the history of the Association, and want the attendance to be beyond all precedent. Those who are unable to attend will miss a rare treat.

Loss in Delivery of Prescriptions

[Editor **Western Druggist**]: A recent issue of the **Western Druggist** has an article by Mr. Moore on "Preventing Loss in Delivering Prescriptions." I submit my de-

livery ticket which works well. It shows whether a parcel is paid for, to be charged or to be collected and how much change is given to errand boy. The small ticket is

For M.....	Address.....		Paid.....	Charge.....	Collect.....	FROM W. BODEMANN THE HYDE PARK PIONEER DRUGGIST Lake Ave. and 50th St., Chicago	No.....	Del'd by.....
Date.....								

For M.....	Address.....	.....	Paid.....	Charge.....	Collect.....	Del'd by.....	No.....
Date.....							

kept at the store and checked off every day, and either a charge certified or payment verified. The large ticket goes on the parcel, and tells its own record to the customer. I think it is an improvement on Mr. Moore's somewhat cumbersome method. I am more in favor of this method the longer I use it. In this locality we have more credit than cash sales and quite often find that a credit parcel has gone out without the charge being entered. This slip catches the loss the next morning. By its use I save two to three dollars a day.

WILHELM BODEMANN.

CHICAGO, February 5, 1908.

Original Communications

THE DRUGGIST'S HELP

J. A. Sanford, Stockton.

At no time since I have been connected with the retail drug trade, and that is somewhat over thirty years, have I seen help so scarce as in the last three or four years. Journals East and West report about the same conditions.

The supply in all lines has been under the demand, but nothing to compare with the retail drug trade. Plenty of explanations and reasons have been set forth, but to my way of thinking there is above all one principal reason, and that is the conditions under which our helpers work do not compare favorably with other ordinary retail lines.

When the demand in general is quite up to or above the supply of help, the helpers can be choosers. Seemingly, the retail drug trade is not a favorite choice. And why?

In a rather general way there strikes me as five reasons at least:

First—Lately gathered statistics, collected by experts at a great outlay by the authorities at Washington, show that young men and women drop into the callings that require the least preparatory period and the quickest returns. The ultimate result or pay seems to be lost sight of. Only about five per cent choose callings that demand probation, and the resulting lower wages that naturally come during this educational period. To start right in the retail drug trade a better general education is needed than for any of the common retail callings.

Second—Legislative restrictions loom up big to the young man entering the retail drug trade. The great care demanded in handling many articles and the responsibility of the passing

out of poisons, all act to chill the young man's ambition and deter him from going on. Conversation with associates in other lines and their freedom from dangerous responsibility all help our young man to decide against the drug trade as a calling. The long-headed one can see that legislative restriction in the end creates an exclusiveness on the job, in fact, puts a premium on it, but the majority don't see this.

Third—Some associate in the store returns from a trial with the Board of Pharmacy and reports failure to pass. The boys all get a chill, the old ones console, but the young fellow says, no, I quit right now. When we hear so much about the perfection of the Massachusetts schools, and take a report of their Pharmacy Board that out of a class of 128 only about 12 pass, it does look chilly. Either the Board standard is much exalted or the candidate material is not what it ought to be. I think some of our Boards have placed a standard far above the actual needs. At the present time to fully qualify for a prescription clerk, the time involved and expense incurred is little short of that to be a Doctor of Medicine, with but few of the advantages of the latter.

Fourth—With the one, two, three we have spoken of, if our young man is a stayer he is still with us, but up to this stage many a one will have dropped out.

Maybe about this time our helper gets to figuring up the nights, holidays and Sundays, and finds he labors each year in the retail drug trade some seven or eight weeks more than his chums in dry goods, hardware or furniture stores. This is the feather that breaks the

camel's back. Right here is where the retail drug trade has to get busy, and get busy soon at that. We must have educated young men to start with. We must have legislative restrictions and the Board of Pharmacy must be upheld, but when it comes to the working hours there must be reform and a breaking away from old-time traditions.

Fifth—Current wages for drug salesmen are only about on an average with skilled salesmen in the leading retail lines. Compensation should be as good or a little better, owing to longer working hours. That wages of a few years ago were insufficient is proved by the great number of graduates that never registered with the Board, and also the number of licentiates not in the trade today. The average of expense in our trade is high, the sales also are small on the average, and the business is not the Scotty gold mine that the newspapers tell us it is, but after all, our helpers should be paid the very best wages that the business will allow. Poor wages have discouraged many a good man and barred him from the drug trade. We must take into account the five thoughts I outlined if the personnel of the retail trade is to be kept up.

I remember many years ago in an Eastern store we opened at 6 a. m. in summer and closed at 11 p. m., on Sunday a few hours shorter, all for sixty dollars a month. When I came to San Francisco a job was offered me at \$65 a month, to work from 6:30 a. m. to 11 or 12 p. m., sleep in the back storeroom for night calls, one night off a week, and one Sunday off a month. I didn't take the job. No man under such working conditions is fit to put up prescriptions, nor can any salesman do justice to his customers. If any worker needs rest and respite from his

work it is the drug clerk. His work is one of constant and trying responsibility. When on duty he must be clear-headed and alert. A 50-cent prescription improperly handled may mean a \$5,000 damage suit, and a damaged reputation for both man and business.

With the M. D. and his pocket case there are but few reasons for night prescriptions or night calls. The druggist's telephone solves this, as well as the late hours that some stores claim to be necessary. As for Sunday work, I don't think five per cent of the sales are for actual necessities. Some people talk about night work and Sunday work as if a drug clerk was just about the same as a shelf bottle or a mortar and pestle—just a useful piece of furniture that was to be always on hand.

A lot of people forget or never remember that the druggist and his help are human and need rest and recreation as well as any one else.

The other fellow wants his nights and half Saturday and his Sundays off, his theatre, his concert, his auto rides, his baseball, and so also does the druggist want rest. A day off takes the blue scum off the eyes, the store looks better, the customers look better, the world looks better, everything looks better. It's science to rest; you can call it Sense Science, Christian Science or any other kind of science, but it's science anyhow.

Rest and recreation are the spiritual food and drink for the mind, and just as necessary as food and drink. Not long ago I heard of a young man who asked his employer for a vacation. The boss said he had taken no vacation for fifteen years. The young man told him one fool of that kind was enough.

The druggist needs to get more atmosphere. One can get oxygen from a gas bag, and the chemist says it's

the same as the outside kind, he can't find any difference; but your lungs, your body and your blood can find the difference.

It's said a stage horse that is kept on one section of a route for long periods will die at half the age of one that is changed every little while from one part of the route to another. There is a moral in this for the druggist who never takes a day off or lets his help do it.

Druggists should enjoy life more, broaden out more, get in the open more, get in the affairs of life more. If a stray one now and then goes to the Legislature, it would do him good and do us good.

Let's have better conditions for ourselves and our help. We need it, we deserve it, but we won't get it if we don't go after it. Let us rest more on Sundays and work less at night. The conditions of our calling are what is making help shy. The business if managed right is right. We don't need to work all the time, and the young man won't go into a trade where he must do it.

People buy their bread and beef-steaks on Saturday. They can do the same with postage stamps and a whole bunch of allied items that druggists are now dealing out on Sundays.

THE BUSINESS SIDE OF PHARMACY

The last two lectures on this topic were delivered to the Senior Class of the California College of Pharmacy on March 12th and 26th, by F. C. Smith, expert accountant, the subject being Drug Store Bookkeeping. As Mr. Smith has for several years had charge of the accounts of a number of drug stores, both small and large, he is well fitted to give instruction in the best method of keeping the books of such firms.

Whatever method of keeping the accounts of a drug store is adopted, it should be systematic. Any other way leads to confusion and error, often great loss. In the British navy's books a red thread runs through all the paper used. So there should be a system running through all your business, and particularly through the bookkeeping part of it. The speaker recently experted the books of a druggist who had estimated his expenses at 23% of his sales. When all the charges that properly belonged to the expense account were charged up, it was found that they were 45%, nearly double the druggist's estimate. He was steadily losing money and did not know it.

Assuming that you use a cash register, when should the money be taken up? At some time when there is the least interruption. Two persons should always attend to this. Take out every cent, return the exact amount left for change, and count the remainder. Should the cash register be rung back to zero, or should the record be allowed to run to the end of the week or of the month? Some prefer one system and some the other, but generally it is best to ring it back every day. Mistakes, if any have been made, are more easily traced, and a discrepancy is not carried forward from day to day. Bank every dollar you take in. If you pay money out of the register all day and deposit only what is left, your banker looks at the totals, and infers that your business is much smaller than it is. Pay all bills by check, even petty cash for expenses, etc. If for convenience you pay a number of small sums out of the register during the day, add these all up at night and draw a check for it and deposit that check with your other cash. Let your banker know all about

your business. Make an accurate and honest showing of your business. Why should you do this? For several reasons. If you want to sell your store and report sales of \$1,200 or \$3,000 a month, and the intending purchaser is referred to your banker, the banker will corroborate the showing of your books.

Avoid the use of loose slips of paper for charging goods sold. Enter all sales in a book. Don't make charges on a pin file. The original entries of goods sold should be made in a day book. Cash received in payment of bills should also be entered in a book. Beware of cashing checks for customers who have accounts. Have a rubber stamp handy to stamp all such checks "For Cash." Then if he claims that he paid you a bill by check, and produces the check, your stamp shows that you gave him the coin for that check.

Write all entries for cash received or goods sold immediately. In making bills and statements the "outlook" envelopes are convenient and safe. The name on the bill serves as the address for the envelope, being visible through the translucent paper. This effectually prevents the mortifying mistake of sending a bill to the wrong person.

Get your bills out monthly, and on the first of the month. People expect them then. Some pay all bills they have on hand at that time, and let the others go until the next month. A firm whose books I once kept send out their bills on the last day of the month, with a memorandum on them, stating that "all items bought after the 29th of the month will appear in our next month's statement." If you are dilatory about getting your bills out, your customers think that you are in no hurry to get the money, so they are in no hurry to pay, or they conclude

that you are careless or unmethodical. Both impressions are bad.

Beware of buying indiscriminately of Tom, Dick and Harry, or of small men, especially if your capital is small. These people are usually short of money, and worry you with their little bills. If you are dealing almost entirely with responsible houses, and for some cause are not able to pay your bills promptly for a few months and you tell them frankly why, they will usually be lenient and give you the time to catch up in your payments. But these men who do business on a shoestring will worry the life out of you.

Learn to say "no" to a drummer. Buy goods only when you want them. Study the Sheldon School of Salesmanship, the fundamental principle of which is to sell only to men who want the goods. This work shows you how to get in touch with your customers. Some people on going into a store always look and even sometimes ask for a certain clerk. "He knows what I want." Get all your customers to feel that way, and you need fear no competition.

In keeping your books, it is important to charge everything to the right account. It is not always easy to decide whether an outlay should be charged to expense, to fixtures or to merchandise. For instance, some persons charge all wages and salaries to expense, others have a separate account for salaries. Now the wages of the porter who cleans the store, etc., goes to expense. It is part of the cost of the day's business and is used up in that. The wages of laboratory hands goes to merchandise, because it is part of the cost of the laboratory product, the same as the drugs, etc., used in making them. But the salaries of the manager, bookkeeper, salesman, etc.,

go to salaries account, being executive or managerial expenses. Again, the fixture account should be charged with all additions thereto, but not necessarily with repairs to them, which usually belongs to expense. If you break a shelf or mirror and buy another to replace it, that outlay should be charged to expense, because the fixtures have not increased in value by replacing what had been destroyed. Fixtures can be sold, hence have a present value. Expenses cannot be turned into cash. Your fixtures are an asset—they constitute a portion of the value of the store. Permanent improvements, which have to be left with the landlord when you give up the building, should be separately valued. They may add to the value of your lease.

Now in regard to keeping accounts. The loose-leaf ledger system is the simplest, quickest, and, in most respects, the best in vogue. Use those that are ruled in columns, or, if you prefer bound books, get those that are ruled in the same way. They can be bought of the commercial stationery houses. In your cash book, for instance, have a column for each of the following items: merchandise, expense, salaries, wages, interest or discount, personal (for each member of the firm), cigars, stationery, candy, soda water, etc. These items are totaled at the end of the month, and, if you have separate entries on the receipts side of your cash book, you can easily learn at the end of the year, and usually a good deal sooner, whether any department of your business is losing money. Don't forget that each department of your business should pay its proportion of the rent, light, salaries and other expenses of the store.

The lecturer then gave a detailed

exposition of the method of keeping these accounts, filing bills and statements, making out statements, transferring accounts, etc. He showed how, by this method, a customer's account is always made out and can be handed to him without a minute's delay. Also how the account is closed and reopened, illustrating these with billheads, day book, ledger, etc. Where there are many credit sales, he recommended having two day books, one for Monday, Wednesday and Friday, the other for Tuesday, Thursday and Saturday. The book of the day is in this way always on the desk, close at hand, so that all debit sales can be entered before the goods are delivered. The book that is in the office being written up is not needed at the counter on that day.

THE HECTOGRAPH

H. D. Morgan, Ph. C.

Acquainted with our troublesome friend? Most of us are. Lots of fun to be "rushed to death" and on top of all this have a cranky restaurant keeper come in and demand a hectograph remodeled at short notice. You don't mind if you have the mass ready to melt and pour into his mould. But may be you have had an experience similar to mine—either out or find what you have has "gone bad."

Hectograph masses are "queer bits"—are either good or "all wrong." Most of them are the latter.

A hectograph should be firm but not hard—readily taking "copy," yet not sticky. So many papers have such a quantity of "sizing" (used to finish or put a polish) that when you've moistened the hectograph mass sufficiently to "take copy" it leaves enough moisture to hold your "sheet," even going so far as to let go some of its own rather than let go the paper.

While you may understand the process through which the ink goes from start to finish, you may find some difficulty in describing it to the "kid," should he ask. As near as my powers of explanation can be applied, you first dampen your mass (which should be moulded in a shallow dish about the shape of the paper you use) and dry it so that there is scarcely any perceptible moisture; press upon this the "copy" which you have written with hectograph ink upon a leaf of your regular stock. Smooth down the "copy," that no wrinkles or missed places remain. Allow to remain a few seconds and remove. Next take your "sheet" and press in a like manner and remove. If your "sheets" get "light," dampen by placing a thin sheet of paper over the "form" and passing over this a moist sponge. Don't allow the "form" to become more than moist.

The process consists in the "form," being porous, absorbing the ink in the form of your letters. Any surface coming in contact with the inky surface adheres to a small portion of the ink, giving a print. The mere moistening of the surface gives "life" to the "form." As most hectograph inks contain glycerin, they will give many prints.

A good hectograph mass should give up its ink to cold or lukewarm water. Hot water "eats" the hectograph.

Many hectograph masses are made clear, others have an insoluble powder added to give cheapness to the mass—to give body and to prevent air bubbles. If you do not heat the glue or gelatin too rapidly you will find few bubbles. Alcohol may be poured on the bubbles and will dispel them. Potassium dichromate and various chromes are also added. Our way is to skim off the bubbles with a paddle or stick.

Gelatin or glue, glycerin and water,

and perhaps some insoluble powder, are the regulars. Various proportions have been suggested. It will be found that unless you add sufficient antiseptic to the mass, micro-organisms will attack and liquify it. This is due to the fact that certain microbes feed on and liquify gelatin.

Too much water in the mass is not good, as spontaneous evaporation may cause cracking.

The formulæ below are the result of research laboratory work, unless otherwise noted:

U. S. Dispensatory—

Glue or gelatin	1 part
Water	2 "
Glycerin	4 "
Whiting or sifted terra alba	3 "

A few drops of phenol added; make
second. art.

Gelatin	4 av. oz.
Glycerin	30 fl. oz.
Water	4 fl. oz.

Soak the gelatin in the water and drop it into the glycerin which has been heated. Pour into shallow tin dish.

Glue	7½ oz.
Glycerin	10 oz.

Soak glue in water; pour off excess water and add soaked glue to heated glycerin. Mould in dish to size of paper used.

Gelatin	8 oz.
Glycerin	10 oz.

Soak gelatin in cold water by turning so all parts will become wet. Pour off water and add soaked gelatin to the glycerin which has been heated. Mould in suitable dish.

All these give fairly good results, but the one which gave us best results is:

Gelatin, best	63.0
Glycerin	216.0
Distilled water	144.0

The gelatin is soaked in the water, by turning the layers of gelatin and separating from time to time. All surfaces will become wetted and the gelatin will be found quite soft. Dissolve

this in the glycerin which has been heated. Pour into the proper mould. Antiseptics added to this will improve its keeping.

The price to the consumer of these masses ranges from 50 to 75 cents a pound (presumably a pint). The cost of manufacture should be considered. The approximate cost of the last-mentioned formula will suffice, as from this you can figure, each article being the best. The formula reads approximately:

Gelatin, $\frac{1}{5}$ lb, costing	.08
Glycerin, $\frac{1}{2}$ lb, costing	.11
Dist. water, 5 oz., costing	.01
Heat (liberal allowance), costing	.05
Cost per lb	.25
Selling price	.75
Cost	.25

For being a pharmacist .50

Since glue and gelatin are the tendons and ligaments, of nitrogenous composition, manufactured by boiling hoofs and bones of cattle, it will be seen they readily "char." Care must be taken not to scorch your product, or the "aroma" left on the "bill o' fare" will be far from appetizing.

Just a word in closing about hectograph inks. They are usually made from aniline or coal tar dyes, glycerin (and sometimes a little alcohol) and water. These inks do not dry too rapidly and give a clear, bright transfer and do not readily blot.

The cultivation of the acquaintance of the hectograph user is sometimes a profitable one, and certainly it is not beneath our profession to be able to make a good hectograph mass.

STERILE FILTERED WATER

By Albert Schneider

Pharmacists find considerable demand for distilled water. There is considerable profit in handling this water

for the use of consumers, to say nothing of its use for prescription purposes, yet to operate the still requires rather close attention, especially to the gas bill. Furthermore, some of the leading authorities declare that the drinking of distilled water is objectionable, because of the disturbance of the osmotic pressure in the cells of the digestive tract. That is, the distilled water acts as a mechanical poison. There is an excessive endosmosis inducing an abnormal distention of the cells, causing physiological disturbances. This action is due to the fact that the mineral salts present in natural drinking water are absent in distilled water.

The pharmacist can prepare cheaply and simply a marketable drinking water which does not have the objectionable qualities above referred to. Instead of distilling the water, filter it, using a Pasteur-Chamberland filter. Whether a large or small filter is used will depend upon the number of customers to be supplied. In all probability a two or three tube filter is large enough for the average retail store. "Rapid safety filters" are of no value whatever, and should not be used, as they are in no sense germ-proof. They merely remove coarse filth. It is true that the Pasteur-Chamberland filters are not absolutely germ-proof, but they remove most of the microbes present, as may be determined bacteriologically by the pharmacist himself. The few germs which may pass through the filter are to be killed by heating the water to the boiling point for 30 minutes or to 80° C. for an hour or so, whereupon it is ready for the market.

Such a filter will cost from \$15 to \$30 set up ready for use. From the filter the water may be conducted into the closed iron, porcelain lined container, where it is heated. A very small flame will maintain the heat as

the water issues from the filter in drops and not in a stream, as in the case of the "rapid safety filters" and other similar filters that are not germ-proof. Such water should be labeled Sterile Filtered Water and it can be guaranteed as being fully as free from germs as the distilled water and is much more palatable and wholesome. A method for re-aerating this, as well as distilled water, could readily be adopted. For example, a slight agitation of the containers, plugged with cotton to admit air (at the same time excluding air and dust microbes) will replace the lost air (oxygen). The water may also be carbonated, if desired. The adoption of some method for cooling the water is left to the pharmacist. Water to be palatable must be very cool, if not actually cold. Nothing is more unsatisfactory and insipid than water which just fails to be cool to the mouth, tongue and fauces.

The above is merely an outline in the rough. It is left to the pharmacist to plan the details of the heating apparatus and its connections with the filter and containers. The water may be filtered without heating it, as described, but such water cannot be guaranteed as being germ free, though it is approximately so. If the water supply to the pharmacy is known to be free from an excess of microbes (100 microbes per Cc. or less) the filtering is all that is necessary. Filtered water (passed through a Pasteur-Chamberland filter) is as clear as distilled water, but clearness does not necessarily prove that there are no microbes present. In a general way it is true that the number of microbes per Cc. of water is proportional to the percentage of organic filth present.

The writer has had occasion to examine distilled water used for pharmaceutical purposes, finding from 5,000

to 15,000 microbes per Cc. It is very evident that distilled water is not necessarily germ free. The contamination is due to the use of filthy (bacteriologically) containers, funnels and stoppers. A word of caution should be sufficient.

THE ESTIMATION OF CAMPHOR IN CAMPHORATED OIL [Linimentum Camphoræ, U. S. P.] BY MEANS OF THE POLARISCOPE

By Fred A. Hund, Ph. C.*

The instrument used for this work was made by Jos. and Jan Fric of Prague, Austria, and reads in circular degrees and hundredths of a degree. In every case the tube-length used was 100 mm., and the temperature was 13° C. (55.4° F.).

Cottonseed oil, which is the official solvent for camphor in camphorated oil, U. S. P., was polarized and showed absolutely no optical rotation.

Accurate solutions of camphor in cottonseed oil were made by cold process, and polarized, giving results as follows:

% Camphor by Wt.	Reading of Polariscope at Temperature 13°c. (55.4° F.)	Tube Length	Rotation for 1% of Camphor
10%	+ 4.92°	100 mm	+ .492°
10%	+ 4.92°	100 mm	+ .492°
20%	+ 9.94°	100 mm	+ .496°
20%	+ 9.90°	100 mm	+ .495°

These readings show that 1% of camphor in solution in cottonseed oil causes an average rotation of 0.493°. Therefore, to get the percentage by weight of camphor in solution in a sample of camphorated oil, divide the reading of the instrument for a tube-length of 100 mm. by 0.493. If a tube of 200 mm. length has been used, divide the reading by 2 to get the read-

*The work here shown was done in the Research Laboratory of the California College of Pharmacy.

ing for 100 mm., and then by 0.493 to get the percentage of camphor.

Another way to calculate the percentage of camphor present is to multiply the reading for 100 mm. (R) by the factor 2.0283, and add 0.000481, i. e., percentage camphor = $(R \times 2.0283) + 0.000481$.

The factor 2.0283 is obtained by dividing 1.000 by 0.493, the rotation for 1% of camphor. The number 0.000483 is added for the reason that on multiplying the reading for a 10% solution by the aforesaid factor, the product is not exactly 10% but 9.999519%, the difference being 0.000481, which is to be added as shown above.

Samples of camphorated oil from various drug stores in San Francisco were polarized by myself, and gravimetric estimations were conducted by W. G. Triebel. The method used by him was to counterbalance known weights of pure cottonseed and camphorated oils on counterpoised scale pans or watch glasses. Both glasses were then put into a drying oven, and kept at a temperature of 100° C. for one hour. The loss in weight of the camphorated oil was then calculated to percent of camphor. (This method was obtained from the Proceedings of the American Pharmaceutical Association.)

The results of both the polariscopic and gravimetric estimations are given in the following table:

No. of Sample	Rotation for 100 mm.	% Camphor by Wt.	% Determined Gravimetrically
1	+ 5.57°	11.29%	11.00%
2	+ 10.86°	22.02%	25.50%
3	+ 6.21°	12.59%	12.75%
4	+ 8.94°	18.13%	19.10%
5	+ .60°	1.21%	1.50%
6	+ 8.10°	16.43%	16.00%

Sample No. 2 showed a distinct blue fluorescence, indicating that mineral

oil had been used instead of cottonseed oil. Subsequent testing proved this. The sample was much paler than the others made with cottonseed oil.

A sample of white petrolatum oil was polarized, giving a rotation of 0.72°.

MODE OF OPERATION OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION

By Albert Schneider

The activity of the Council of Pharmacy and Chemistry has received much notice and much favorable as well as unfavorable comment from the medical and pharmaceutical press. Some of the medical journals are especially vitriolic in their criticisms. No doubt the unbiased authoritative critic could find things in the action and attitude of the Council which are objectionable, yet it cannot be denied that this body of men is doing much good and is having a salutary influence upon the manufacturer as well as user of proprietary remedies. It cannot be denied that there are thousands of "articles" manufactured and forced upon the market which have absolutely no cause for existence, either ethically, therapeutically, pharmaceutically or physiologically. There are thousands of busy practicing physicians who use articles simply because the advertisement declares it to be good. It may be that in time these busy physicians will find that the article is a fake, but in the meantime the manufacturer has taken in the shekels and is ready to place a new "good seller" on the market.

The chief aim of the council is to keep a watchful eye on new preparations of a patented and proprietary nature, endeavoring to sort the articles

which **may** have real therapeutic value from those which are apparently pernicious. There can be no doubt that such work is most desirable and all physicians and pharmacists will, in time, realize the good that is being done by the Council, to say nothing of the benefit to the public at large.

The following excerpts from a paper by Dr. G. H. Simmons will serve to explain what methods are followed by the Council in examining articles:

"Procedure"

"As the members of the Council are scattered, meetings, except at rare intervals, are impracticable. The method of procedure, however, is simple, communication between the members being through a bulletin prepared and sent to each member by the secretary every Thursday. In this bulletin are arranged systematically the reports, motions, comments, discussions, etc., the matter being indexed so that ready reference to all past work is at hand for each member.

"The Council is divided into three definite divisions—chemistry, pharmacy and pharmacology. Articles are assigned to a sub-committee usually consisting of but one member for preliminary report. This sub-committee consults with other members, with outsiders, and, if thought advisable, makes or has made chemical analyses or physiologic examinations. If the sub-committee desires to communicate with the manufacturer, the correspondence is conducted through the secretary of the Council, the identity of the sub-committee not being divulged.

"When ready the report is placed in the Bulletin, together with such correspondence or other matter that the subcommittee may think necessary for the guidance of the members in arriving at a conclusion. The report may be preliminary or final. If final, the article is recommended for either Class A, B, C or D, and reasons given for the recommendation. When the final report is made, it is before the whole Council for action. If the article is put in Class A, it means acceptance; if in Class B, more definite information regarding the composition is wanted; if in Class C, certain modifications in the literature are required, and, if in Class D, it means refusal of recognition.

"The assignment of an article to Class A

or Class D is not necessarily final. If an article which has been voted to Class A is later found to conflict with the rules, the action of the Council may be reconsidered. Similarly, an article voted to Class D may again be taken up and finally accepted if it is found that it has been made to conform with the rules.

"Many manufacturers, believing that the publication of certain information in regard to their products would detract from their value, have often volunteered to furnish information for the private use of the Council. The Council, however, does not receive trade secrets, but insists that all information it receives may be published at its discretion. The Council desires information for the profession, and not for itself alone.

"Chemical Examination Not Always Made"

"It is needless to say that the Council does not make chemical examinations of every remedy. Such a task is manifestly impossible. If the authors of text-books on physiology, on anatomy or on practice were to verify every statement they made, such works could not be completed in a lifetime. Instead, the authors, by virtue of their general knowledge of the subjects on which they write, select the truths as they see them. These, finally presented in the form of a text-book, are again accepted as truths by students, because they believe that the author was competent to select from the mass of literature at his command those statements which were most probably true. In the same way the Council has attempted to prove or disprove statements which seemed questionable, while it has accepted those which, from its general knowledge, were believed to be true. In this matter it is needless to say that the Council has been inclined to accept statements made by firms or persons known to be reliable and responsible, while it has been inclined to examine more closely the statements made by irresponsible parties, or by those who seemed to be inclined to exaggerate.

"Chemical Laboratory"

"A chemical laboratory has been established in the Association building and is in charge of the secretary of the Council, Professor Puckner, and an assistant. While it is not possible to do a large amount of chemical work in this laboratory, it will be of great advantage in many ways.

"In connection with the movement much information relating to the general subject

has been gathered. This has been classified, indexed and made available for the future. This, in fact, is one of the important features of the work being done in the central office. In the past considerable matter has been published in drug or chemical journals and has never come to the attention of physicians—the very ones who should have been informed.

"The important drug and chemical journals of the world are taken for the laboratory, and the information obtained from them is most valuable. It is needless to say that hereafter physicians will be informed of matters which concern them that appear in this class of journals.

"In connection with the laboratory is an information bureau, in one division of which advertising literature has been collected and classified. This includes booklets, circulars, advertisements and write-ups in medical journals, etc., covering the last five years. The exhibit is interesting and instructive for those who want to make a study of this nostrum business, and will furnish texts for future sermons in the propaganda for common sense in therapeutics.

"Another division directly related to the above is a card index of those who have given testimonials or furnished write-ups of proprietary preparations. These cards are made up in great part from the matter on file. This division is also very interesting. While it contains the names of a few excellent men, the great majority are hardly known in their own locality, and yet their opinions are accepted without question by intelligent, well-educated practitioners. Some seem to have a habit of giving testimonials for all kinds of things, and it requires considerable space to record the references. It is encouraging to note that this exhibit is not growing so fast as it was. Evidently, testimonial giving is not so popular as it was previous to a year and a half or two years ago.

"It is well known, that while the **name** of a product does not change, the **composition** of the product may, and does. To be able to show this in the future, samples of many proprietaries are preserved, with date of receiving, etc.

"Coöperation of Others

"One favorable development is the co-operation of other workers in similar fields. A number of chemists in universities, schools of pharmacy, etc., have volunteered to assist, and it is expected that in the

future the aid of such men will be of great advantage in solving questions on which they are especially well qualified to pass. Several State and municipal boards of health are doing good work, and exchange of information with these is now a feature. This promises to develop in the future to the mutual benefit of these boards and the Council. It is hoped, in time to interest teachers in medical colleges; such help is sorely needed.

The advantage to the Council of having as members Dr. Wiley, chief of the Bureau of Chemistry, and Dr. Kebler, chief of the Drug Laboratory, has been very great, for it has received not only their personal aid, but also material assistance from the departments with which they are connected. In fact, without the aid of these laboratories some of the work done would have been impossible. The profession is also under great obligations to Surgeon-General Wyman, who permitted Dr. Reid Hunt to serve as a member of the Council. Through Dr. Hunt's connection with the Hygienic Laboratory of the Public Health and Marine-Hospital Service, and with the permission of Surgeon-General Wyman, it has been possible to refer certain intricate problems to that laboratory that otherwise would have been difficult of solution.

"Foreign Coöperation

"Another promising feature is the fact that the Council is getting in touch with workers abroad. For instance, splendid work is being done in Berlin, especially in the investigation of the synthetic chemical compounds under the auspices of the German Apothecary Society. This is directed by Professor Thoms of the Pharmaceutical Institute of the University of Berlin, a chemist of international standing. Correspondence with Professor Thoms has been carried on for some months, and he has offered to assist the Council whenever possible. At the request of the Council, the Board of Trustees of the American Medical Association has just elected him a corresponding member of the Council.

"Professor Cushny of the University of London has been a corresponding member since he left this country soon after the Council was organized.

"It is hoped very shortly to get similar foreign correspondents in Paris, Switzerland and in other countries. Such coöperation will be of great assistance in dealing with foreign products.

"Conditions Already Improved"

"The work has been going on for a little over two years. To all appearances there are just as many nostrums on the market, and the advertising pages of certain medical journals are just as well filled with this class of medicines—in fact, if the truth must be told, better, and for reasons that should be evident. But in spite of this apparent evidence of prosperity, if one looks beneath the surface, one will find that a change has taken place. There has been a gradual decrease in the number of write-ups of proprietaries; there is evidence that physicians are thinking, that they have developed a healthy skepticism and no longer believe all that is told them about the wonderful cure-alls they are asked to prescribe. The detail men do not have such willing and credulous listeners. There has been a remarkable falling off in the sale of "ethical" proprietaries, especially those of the typical nostrum type. This is common knowledge to those in touch with the trade. A comparison of the catalogues of some of the manufacturing houses in circulation two years ago with those of today will reveal the fact that not a few of the "specialties" are missing. And the descriptive matter, formulas, etc., of many others are different from what they were. A part of this is explained by the national Food and Drugs Act, but only a part. Many of the changes had taken place before this law was passed.

"The influence of the Council in this connection has been greater than will ever be known. The knowledge that our profession is at last awake, that it has a body to expose the frauds that may be imposed on physicians has aroused some of the manufacturers at least to realize that old conditions have changed. The advertising literature is scrutinized more carefully; positive cures for incurable diseases are not so common."

CALIFORNIA MEDICINAL PLANTS

By Albert Schneider

272. *Cucurbita foetidissima*. Chili Cojote. Gourd. Cucurbitaceæ.

Leaves and the large roots are used for washing, but must be thoroughly rinsed because it is very irritating to the skin. Leaves are highly valued medicinally. The pulp of the green fruit is mixed with soap, and applied to

sores and ulcers. Seeds are ground and eaten.

273. *Cucurbita perennis* Gray. Chili Cojote. Mock orange. Cucurbitaceæ.

Pulp of green fruit used as a substitute for soap. Macerated root used as a remedy for piles and the seeds are eaten by the Indians. The roots are crushed by the Coahuila Indians, mixed with sugar and applied to the saddle sores of horses. (Barrows.) (U. S. Geog. Surv. Wheeler's Rep. Bot. VI: 44.) (Calif. Geol. Surv. Bot. I: 239.) Also used by Mexicans in tanning.

274. *Cymopterus acaulis*. Umbelliferae.

This and several other species are used. Some species are perhaps poisonous. Roots said to be eaten by Indians.

275. *Cymopterus fendleri* G. Umbelliferae.

Resembles *C. anisatum* and, like that plant, emits a strong anise-like odor when boiled. The decoction used with whisky is used as a warm stomachic bitters. Also used as a kitchen confection in dressing, etc. It has carminative and tonic properties. Roots of most species eaten by Indians. (U. S. Geog. Surv. Wheeler's Rep. Bot. VI: 44.)

276. *Cynoglossum grande* Dougl. Coyote. Dog ear. Boraginaceæ.

Cooked roots are eaten. Indians use grated roots to apply to scales and burns and to relieve stomachache. (Contrib. U. S. Natl. Herb 7: No. III, 382.)

277. *Cypripedium hirsutum* Mill. Larger yellow Lady's Slipper. Orchidaceæ.

Found in Maine, Minnesota, Alabama, Arkansas and sparingly in Colorado. Can no doubt be introduced into California.

278. *Cypripedium montanum*. Lady's Slipper. Orchidaceæ.

Not very plentiful and requires study. Another species, *C. californicum*, is found in Mendocino County.

279. *Cypripedium parviflorum* Salisb. Orchidaceæ.

Range much as preceeding, but extending farther north and west, to the State of Washington. Can no doubt be cultivated in certain areas of California.

280. *Cypripedium reginæ* Walt. Showy Lady's Slipper. Orchidaceæ.

In swamps of Georgia, Missouri and Minnesota. Can no doubt be introduced into the boggy swamp lands of California.

The poisonous nature of the above orchids was not suspected until about 1875, when Prof. H. H. Babcock called attention to symptoms produced not unlike those caused by poison ivy (*Rhus radicans*). In 1894 Prof. D. T. MacDougal of the State University of Minnesota (now at the New York Bot. Gardens) investigated these plants more carefully and reached the conclusion that the active principle (oil) occurred in the glandular trichomes of the leaves and stems. The action and exact chemical nature of this substance requires further study. (D. T. MacDougal. On the poisonous influence of *Cypripedium spectabile* and *C. pubescens*. Minnesota Bot. Studies. Bul. 9, Jan., 1894.)

281. *Cytisus laburnum* L. (*Laburnum vulgare*.) Papilionaceæ.

Cultivated in California.

282. *Cytisus scoparius* L. Broom. Papilionaceæ.

Very common as an ornamental plant throughout the State. A decoction is used as a diuretic and cathartic, in cardiac affections and in dropsy. In large doses it is poisonous and emetic. Said to be useful as a supporter of the heart's action during chloroform and ether anæsthesia.

A very common ornamental shrub throughout the State. Well-known medicinally. Numerous other species of cystisus are introduced. (U. S. Disp.)

New Official and Non-Official Remedies Tentatively Accepted

The following list of new and non-official remedies is tentatively accepted by the Council on Pharmacy and Chemistry of the American Medical Association. The council desires to have it understood that the acceptance of an article does not necessarily mean a recommendation, but so far as known, it complies with the rules adopted by the council. The following are the rules governing the recognition of articles. The term "article" means any drug, chemical or similar preparation used in the treatment of disease:

"Rule 1.—No article shall be admitted* unless its active medicinal ingredients and the amounts of such ingredients in a given quantity of the article be furnished for publication. The general composition of the vehicle, its alcoholic percentage, if any, and the identity of other preservatives, if present, must be furnished.

"Rule 2.—No chemical compound will be admitted unless sufficient information be furnished regarding tests for identity, purity and strength, the rational formula or the structural formula, if known.

"Rule 3.—No article that is advertised to the public will be admitted; but this rule will not apply to disinfectants, and food preparations, except when advertised in an objectionable manner.

"Rule 4.—No article will be admitted whose label, package or circular accompanying the package contains the names of diseases, in the treatment of which the article is indicated. The therapeutic indications, properties and doses may be stated. (This rule does not apply to literature distributed solely to physicians, to advertising in medical journals, or to vaccines and antitoxins.)

"Rule 5.—No article will be admitted or retained concerning which the manufacturer, or his agents, make false or misleading statements as to geographical source, raw material from which made, or method of collection or preparation.

* That is, admitted into the booklet referred to—
"New and Non-Official Remedies."

"Rule 6.—No article will be admitted or retained of which the manufacturer, or his agents, make unwarranted, exaggerated or misleading statements as to therapeutic value.

"Rule 7.—Labels on articles containing "poisonous" or "potent" substances must show the amounts of each of such ingredients in a given quantity of the product. A list of such substances will be prepared.

"Rule 8.—If the trade name of an article is not sufficiently descriptive of its chemical composition or pharmaceutical character, or is, for any other reason, objectionable, the council reserves the right to include with the trade name a descriptive title in the book. Articles bearing objectionable suggestive names will be refused consideration.

"Rule 9.—If the name of an article is registered, or the label copyrighted, the date of registration and a copy of the protected label should be furnished the council. In a case of registration in foreign countries, the name under which the article is registered should be supplied.

"Rule 10.—If the article is patented—either process or product—the number and date of such patent or patents should be furnished."

The list as here given is a tabulation prepared from the booklet published by the American Medical Association, entitled "New and Non-Official Remedies." Those desiring fuller information regarding these remedies should procure this booklet, which may be had through the secretary of the council, W. A. Puckner, 103 Dearborn Street, Chicago. As will be seen, the list is given in alphabetical order, according to proprietary names, followed by synonym or synonyms, name of manufacturer, source or composition, action, uses and dosage.

1. **Acetozone.** A mixture of equal parts benzoylacetyl peroxide and an inert powder. Parke, Davis & Co. External and internal germicide. For internal use dissolve 1 gm. in 1 L. of warm water, drink *ad lib.*

2. **Acetozone Inhalant.** Solution of benzoylacetyl peroxide in liquid petrolatum. Parke, Davis & Co. Respiratory antiseptic. Inhaled in form of fine spray.

3. **Acetphenetidinum U. S. P.** Phenacetin. Phenacetinum. Analgesic and antipyretic. 5 grains. (See U. S. P.)

4. **Acet-Theocinsodium.** Soluble theocin. Double salt of sodium acetate and 1,

3-dimethylxanthine sodium. Farbenfabriken Elberfeld, Germany. Diuretic in cardiac affections, dropsy and nephritis, 3-5 grains.

5. **Adnephryn Emollient.** F. Stearns & Co., Detroit, Mich. Ointment of adnephryn (1-1000). Vasomotor constrictor action, inflammations. Local application.

6. **Adnephryn Oil Spray.** Adnephryn in a neutral oil (1-1000). F. Stearns & Co., Detroit, Mich. Mucous membrane congestion, in the form of a spray.

7. **Adnephryn Solution.** Adnephryn in normal salt solution (1-1000), with 1% methaform. F. Stearns & Co., Detroit, Mich. External and internal use in congestion, hemorrhage. Internally 3 to 30 minims.

8. **Adnephryn Suppositories.** Adnephryn in oil of theobroma (1-1000). F. Stearns & Co., Detroit, Mich. Congestion, inflammation.

9. **Adrenalin. Suprarenalin.** Takamine's alkaloid of suprarenal glands. Parke, Davis & Co., Detroit, Mich. Nerve tonic, hemorrhages, congestions. External and internal use. Locally 1-12000 solution, internally 5 to 30 minims of 1-1000 solution.

10. **Adrenalin Chloride Solution.** Adrenalin hydrochloride in normal salt solution (1-1000) with ½% chloretone. Parke, Davis & Co., Detroit, Mich. Use and dosage as for adrenalin.

11. **Adrenalin Suppositories.** Parke, Davis & Co., Detroit, Mich. Adrenalin and oil of theobroma (1-1000).

12. **Aethylis carbamas, U. S. P.** Hypnotic 15 to 45 grains. (See U. S. P.)

13. **Agurin.** Theobromine-sodium-acetate. Double salt of sod. acetate and theobromine-sodium. Farbenfabriken Elberfeld, Germany. Diuretic, 7 to 15 grains.

14. **Airol. Airoform.** Bismuth iodosubgallate. Bismuth oxyiodogallate. Gallic acid and oxyiodide of bismuth. P. Hoffmann-La Roche & Cie., Basle, Switzerland. Wound antiseptic. Applied externally in powder, in ointment, etc.

15. **Akaralgia.** Granular effervescent sodium salicylate compound. 13 to 15% silver nitrate in gelotose in form of tablets. Wm. S. Merrell Chem. Co., Cincinnati, Ohio. Substitute for silver nitrate.

16. **Alpha-Eucaine Hydrochloride.** Eucaine hydrochloride "A." Alpha-Eucaine. Chemische Fabrik auf Actien, Berlin, Germany. Local anæsthetic like cocaine, less

toxic. 10 to 30 minims of a 4% solution.

17. **Alphozone.** Succinic dioxide, succinic peroxide, disuccinyl peroxide. Condensation of hydrogen dioxide with succinic anhydride. F. Stearns & Co., Detroit, Mich. Oxydizing germicide, external and internal. 1-1000 solution in water for external use.

18. **Alumnol.** Aluminum betanaphthol-disulphonate. Alumini naphthol-sulphonas. Farbwerke Lucius & Bruening, Hoechst, am Main, Germany. Astringent antiseptic. 5 to 3% solution. As a **cautery**, 10 to 20% solution.

19. **Alypin.** F. Boyer & Co., Elberfeld, Germany. Hydrochloride of benzoyl-2-ethyl-1, 3-tetramethyldiaminopropan-2-ol. A local anæsthetic, like cocaine, less toxic. Externally (10%) and hypodermically (1 to 4%) solution.

20. **Anesthesin.** Paramidobenzoic acid ethyl ester. Farbwerke Lucius Bruening, Hoechst, am Main, Germany. Local anæsthetic, like cocaine, not toxic. External (dusting powder) and internal (pastilles, 5 to 8 grains).

21. **Anthrarsol.** Colorless coal tar. Tar freed from pitch, pyridin bases and coloring matter. Knoll & Co., Ludwigshafen, am Rhein, Germany. Antiseptic, skin parasiticide, eczema. Local use in 5 to 20% in ointment, etc.

22. **Antipyrine Salicylate.** Salipyrine. Salazolan, salipyrazon. Antipyrine salicylate. Analgesic and antipyretic, antirheumatic. 5 to 30 grains in cachets or capsules.

23. **Antithermoline.** A mess consisting of purified kaolin (4000 grains), boric acid (14 grains), oil of eucalyptus, menthol, thymol and glycerin (4.9 fl. ounces). G. W. Carnrick Co., New York City. External antiseptic dressing, like the Cataplasma Kaolini, U. S. P.

24. **Antithyroidin.** Serum antithyroidum. Blood serum of thyroectomized sheep taken six weeks after operation. Used in goiter, .5 to 1 Cc. internally. The blood and milk from thyroectomized sheep is also used for similar purposes.

25. **Argentamin.** Ethylene-diamine-silver nitrate. Liquor argentamini. Aqueous solution (10%) of silver nitrate and ethylene diamine. Chemische Fabrik auf Actien, Berlin, Germany. Astringent antiseptic. .25 to 4% solution.

26. **Argonin.** Silvercasein. Casein sil-

ver. Soluble casein and 4.28% silver. Farbwerke Lucius & Bruening, Hoechst, am Main, Germany. Action like silver nitrate, 5 to 15% solution.

27. **Argyrol.** Silver vitellin. Proteid and 20 to 25% silver. Barnes & Hille, Philadelphia. Antiseptic; used externally and internally, 10 to 15% solution.

28. **Aristochin.** Aristochin. Diquinine carbonic ester. Carbonyl quinine. Neutral carbonic ester of quinine. Farbenfabriken Elberfeld, Germany. Use and properties like quinine, tasteless.

29. **Aspirin.** Acetylsalicylic acid. Acetyl derivative of salicylic acid. Elberfeld, Germany. Intestinal antiseptic. 5 to 15 grains in capsules, wafers, wax paper or in sweetened water.

30. **Benzosol.** Guaiacol benzoate, benzoyl-guaiacol. Farbwerke, Hoechst, am Main, Germany. Intestinal and urinary antiseptic. 3 to 10 grains in powder, capsule, pill, wafer or suspended in liquids.

31. **Beta-Eucaine Hydrochloride.** Eucaine hydrochloride-B, betaeucaine. Hydrochloride of 2,6,6-trimethyl-4-benzoyl-hydroxypiperidine. Chem. Fabrik auf Actien, Berlin, Germany. Local anæsthetic, like cocaine. 2 to 10% solution or ointment.

32. **Beta-Naphthol-Benzoate.** Benzonaphthol. Benzoyl-beta-naphthol. The benzoic ester of beta-naphthol. Fabrik von Hyden, Radebeul bei Dresden. Intestinal antiseptic, also used externally as a parasiticide, 3 to 8 grains.

33. **Betol.** Naphthalol, naphthol-salon, Salinaphthol. Salicylic ester of betanaphthol. Heyden Chemical Works, New York. Intestinal and urinary tract antiseptic, and antirheumatic. 4 to 8 grains in cachets, milk or emulsion.

34. **Bismal.** Bismuth methylen-digallate. Compound of bismuth hydroxide and methylen-digallic acid. Merck & Co., New York. Astringent in diarrhea, 2 to 10 grains in cachets or powder.

35. **Bismuthi Suggallas U. S. P.** Bismuth subgallate. Compound of bismuth and gallic acid. Absorbent and astringent dressing and intestinal antiseptic. 10 to 20 grains.

36. **Borochloreton.** Chloreton 1 part and boric acid three parts, a mixture. Parke Davis & Co., Detroit, Mich. Analgesic, antiseptic surgical dressing powder.

37. **Brometone.** Acetone-bromoform. Reaction of acetone on bromoform. Parke

Davis & Co., Detroit, Mich. Action and uses of bromides. 5 grains.

38. **Bromopin.** Brominized sesame oil. Sesame oil and 10% bromine. Merck & Co., New York. Action of bromides. 1 to 8 drams. There is also a 33⅓% Bromopin.

39. **Bromo-Mangan.** Liquor Ferro-Mangani Bromopeptonati. Reinschild Chem. Works, New York. Tonic and sedative.

40. **Butyl-Chloral Hydrate.** Croton Chloral hydrate, chloral butylicum trichlorbutylidene glycol. Like chloral, 5 to 20 grains. Official in British Pharmacopœia.

41. **Calcium Ichthyol.** A derivative of ichthyol in which calcium is substituted for ammonium. Merck & Co., New York.

42. **Calomelol.** Colloidal calomel. Soluble colloidal form of calomel. Heyden Chem. Works. New York. Like calomel. Internally as calomel, externally as dusting powder, or as calomelol ointment in syphilis.

43. **Cascara Evacuant.** Bitterless glucoside of Rhamnus Purshiana. Parke Davis & Co., Detroit, Mich. Laxative. 10 to 30 minims. Also Cascara tonic laxative globules of the same firm.

44. **Cataplasma Kaolini U. S. P.** A mess not unlike antithermoline. (See U. S. P.)

45. **Celloidin.** Purified pyroxylin Chem. Fabrik auf Action, Berlin, Germany.

46. **Chinaphenin.** Quinine carbonic ester of phenitedin. Elberfeld, Germany. Action of quinine and phenacetin. 5 to 10 grains.

47. **Chloroformamidum U. S. P.** Direct union of formamide and anhydrous Chloroform. Like chloral. 20 to 40 grains.

48. **Chlorbutanol. Chloretone.** Acetone-chloroform. Reaction of Acetone and Chloroform. Parke Davis & Co. Anæsthetic and antiseptic, analgesic, hypnotic. 5 to 30 grains dry or in capsules. Used locally in powder or sat. aqueous solution. Chloretone Inhalent, a chloretone-camphor mixture, inhaled as a fine spray.

49. **Citarin.** Sodium anhydromethylene citrate. Normal sodium salt of anydromethylene-citric acid. Elberfeld, Germany. Said to eliminate uric acid. Used in gout and chronic rheumatism. 15 to 30 grains, in water.

50. **Collargol.** Colloidal silver, soluble silver. Water soluble allotropic form of silver (85-87% silver). Heyden Chem. Works, Radebeul, Germany. General antiseptic. Locally in ointment and solution, internally 1 dram of 1-1000 solution, 1 gr.

tablets. Collargol ointment is also made by above firm.

51. **Compound Emulsion Petroleum.** Refined petroleum 5%, petroleum oil 28⅓%, with calcium hypophosphite 10 grains and sod. hypophos, 5 grains in one ounce. Sharp and Dohme, Baltimore, Md. Used in respiratory catarrh.

52. **Creosote Carbonate.** Creosotal. A mixture of carbonic acid esters. Fabrik von Heyden, Radebeul bei Dresden. Action of creosote, said to be nontoxic. In tuberculosis, etc., and as intestinal antiseptic. Internally 5 to 30 grains in milk, coffee, etc.

53. **Cresol U. S. P.** Mixture of three isomeric cresols. Antiseptic like phenol, less toxic, more soluble.

54. **Cresylone.** Similar to **Liquor Cresolis Comp. U. S. P.**, which see. Parke Davis & Co.

54-a. **Cupro Hemol.** 2% copper in organic combination. Merck & Co., New York. Tuberculosis, scrofula, anæmia, chlorosis. ⅝ grain.

55. **Dentalone.** Saturated chloretone solution with aromatic oils. Parke Davis & Co. Anæsthetic dental antiseptic.

56. **Diabetin.** Levulose, fruit sugar fructose. Chem. Fabrik auf Action, Berlin, Germany. Proprietary name misleading. It is pure fructose. Used in diabetes as a sweetening agent. 1 to 2 ounces daily.

57. **Diacetyl-Morphine.** Acetylated morphine. Use and properties doubtful.

58. **Diacetyl-Morphine Hydrochloride.** Hydrochloride of above. Doubtful value as a substitute for morphine in respiratory troubles.

59. **Dionin.** Ethyl-morphine hydrochloride. Merck & Co. Action and dose as for Codeine.

60. **Diuretin.** Theobromine-sodium salicylate. Knoll & Co., Ludwigsenhafen, Germany. Action of theobromine, more soluble. 15 grains.

60-a. **Dolomol.** Magnesium stearate. Pulvula Chem. Co., New York. Dusting powder as a skin protective. Combined with numerous substances as acids, alum, camphor, etc. A vehicle.

61. **Duotol.** Guaiacolis Carbonas U. S. P.

62. **Duotonal.** See **Glycerophosphates.**

63. **Elixir of Enzymes.** Solution of pepsin and rennet in 20% alcohol. Armour & Co., Chicago. Aid to digestion and as a vehicle.

64. **Elixir Eupnein.** Compound elixir of

heroin, creosote and terpin hydrate. Shieffelin & Co., New York. Used in chronic bronchitis, etc. 1 to 3 drams.

65. **Elixir Saw Palmetto.** Elixir sabal, sandalwood and corn silk. Parke Davis & Co. Diuretic and sedative. 1 to 4 drams.

66. **Empyroform.** Condensation product of birch tar and formalin. Chem. Fabrik auf Action, Berlin, Germany. In itch and other skin diseases. 5 to 10% ointment, 10 to 20% tincture, 37.5% suspension, 10-20% zinc paste.

67. **Epicarin.** Oxynaphthyl-ortho-oxy-toluic acid. Elberfeld, Germany. Antiseptic and parasiticide. Externally in 5 to 20% ointment, in petrolatum, wool fat; 10% oily or alcoholic solution.

68. **Erythrol Tetranitrate.** Tetranitrol, Erythrol nitrate. Nitration of erythrite (tetraatomic alcohol). Merck & Co., New York. Like nitro glycerin, a vasodilator and antispasmodic. Explosive. $\frac{1}{2}$ grain tablets.

69. **Essence of Pepsin.** Solution of Pepsin in 18.5% alcohol. Fairchild Bros. & Foster, New York. Aid to stomach digestion. 1 dram or more.

70. **Ethylenediamine.** Ethane diamine, a, b-diamino-ethane. Chem. Fabrik auf Action, Berlin, Germany. Albumin dissolving germicide used in diphtheria. (See Kresamine.)

71. **Ethyl-Morphine Hydrochloride.** Codethylene hydrochloride. Merck & Co. Like morphine or codeine. $\frac{1}{4}$ to 1 grain.

DOCTORS OF PHARMACY

By Albert Schneider

Professor J. H. Beal of Scio College makes an appeal for the degree of Doctor of Pharmacy. We object most decidedly to conferring the degree upon graduates of colleges of pharmacy that have practically no entrance requirements and only two seasons of actual college work. This is true of the majority of the colleges of pharmacy in the United States. Let us exert our energies toward raising the educational qualifications of pharmacists. As soon as the pharmacist is really deserving of the title of doctor he will get it. Doctor signifies a learned man. One with a doubtful

grammar school learning and two years in an average college of pharmacy is not a learned man. The average recognized title of doctor of medicine represents high school graduation, one or two years of university work, and four years of hard work in a recognized college of medicine. It is quite different. Doctor of philosophy (Ph. D.) is also quite different.

The idea of conferring a degree of Doctor of Pharmacy, **honoris causa**, is a most excellent one. We approve of it most heartily. There are a number of men fully deserving of such recognition. We would suggest that the American Conference of Pharmaceutical Faculties confer such degrees at the time of meeting of the American Pharmaceutical Association. Such degrees would really mean something. We should like to hear from others.

It must, however, be kept in mind that Ph. D. is the recognized abbreviation for doctor of philosophy, hence pharmacists must adopt some other form of abbreviation, for example Pharm. D. or Phar. D. or Pha. D. or perhaps P. D. The latter would harmonize in form with M. D.

He Was a Professor

A group of poolroom philosophers were hammering their philosophy into each other's thick skulls. A Harvard man stood by dumbfounded at the hard-headed wisdom, when one—an elderly man—addressed himself to our friend:

Say, Mr. W—, I knowed a professor once—a very smart fellow, one of the ablest men the country ever knowed. Wish you could have met him."

"What was he professor of, Tom?" inquired our Harvard man.

"Well, now, I ain't just sure what, but say, he could take a common steel pen and with it draw the most beautiful birds and eagles and things you'd ever care to look at."

A. Ph. A., Hot Springs, Arkansas,
September 7, 1908.

Scientific Notes

RAISING THE SMALLPOX QUARANTINE

France has raised the quarantine against smallpox, an example which will perhaps be gradually followed by other civilized states. The reasons for so doing are very simple and clear. Those not afflicted with this disease can secure absolute immunity through vaccination. For example, a case of smallpox occurs in a given home, which to begin with would not happen if vaccination were properly attended to. But for the sake of the argument we will suppose that there is smallpox in a given home. It is up to each individual in that neighborhood to see to it that he or she can prove comparatively recent successful vaccination or to be at once vaccinated. If the individual refuses to heed this simple, safe and harmless advice, he must abide by the consequences. Systematic vaccination makes smallpox epidemics impossible. It is true we find occasional smallpox in vaccinated persons, but these cases are rare and the disease occurs as a rule in a mild form.

We understand that Minnesota has raised the smallpox quarantine (verbal report of Dr. H. B. Carey). It is perfectly safe to raise the quarantine in all countries where vaccination is systematically practiced. The outcome of such a measure would, no doubt, be disastrous in communities where anti-vaccination fanatics abound and where vaccination is not compulsory. We have in the enlightened university suburb, Berkeley, an editor who opposes vaccination with marvelous persistency. As an individual in the community he could do but little harm, but in his editorial capacity he is capable of doing much harm. We can in a measure understand the opposition to the use of vaccine virus among the fanatical ignoramuses living in the jungles and hills of India and Africa, but we cannot comprehend the cerebrations which might induce an editor of a daily paper in a university town in a State ranking first educationally, to oppose vaccination. Is he sincere or is there some ulterior purpose? It is beyond us. We give it up.

THE RAT EXTERMINATOR

We need a rat exterminator that will kill rats, and perhaps related animals, such as mice, but which is harmless to human beings and domestic animals. The Azoa prepared by the firm of Parke, Davis & Co. is apparently such a substance. It consists essentially of a modified culture of the bacillus of Danysz, *Bacillus murisepticus*. The virulence of the bacillus is said to be greatly increased by some process. Granulated oatmeal is mixed with these cultures, the material dried and put up in ounce bottles ready for use. It is simply fed to rats and mice, either full strength or mixed with some dry rat food, as wheat, oatmeal, cornmeal, etc. On eating this food the rat or mouse inoculates itself with an infectious and contagious disease of the intestinal tract, which as a rule kills the animal in the course of three weeks.

Several representatives of Parke, Davis & Co. now in San Francisco are devoting the major part of their time to the introduction of this exterminator. They declare that when used according to instructions it gives excellent results as a rule.

We are satisfied that the principles underlying the use of this rat and mice exterminator are scientifically rational, and we also know that Dr. Haughton of Parke, Davis & Co., who has charge of the biological laboratory, is a man of unquestioned scientific honesty and ability, and would not publish or give his consent to the publication of reports which are not absolutely truthful. We are therefore inclined to believe that in Azoa we have a remedy which will do the work that it is promised to do.

It is true several "exterminators" operating along similar lines have proven failures, for example, the bacterial chintz-bug exterminator of Illinois, but it does not follow that all must be failures; in fact, we know that some have proven themselves decidedly successful.

Arsenical and other universally poisonous rat exterminators are dangerous and should not be used. Already too many human beings (mostly children) have been accidentally killed by them, to say nothing of the accidental poisoning of domestic animals. In Azoa we have an ideal remedy, and we hope it will prove entirely satisfactory.

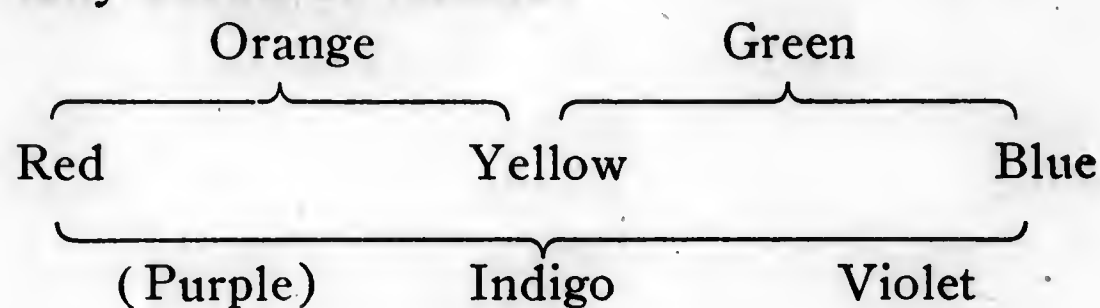
THE LUMIÈRE COLOR PHOTOGRAPHY

Taking photographs of objects showing their natural colors has been practiced for some time, and the earlier process of using colored glass plates (red, yellow and blue) has been brought to considerable perfection. Such colored photos have been widely published in journals, books, pamphlets, advertisements, etc. The colored glass plates process, however, had its defects, and the earlier work in particular was often very indistinct and blurred at the margins.

The Lumière process is notable for its simplicity and its advantages over and improvement upon the older method referred to. Instead of colored glass plates, a single glass plate having upon its surface a film of colored starch granules is used. The granules are colored red, yellow and blue and serve as a light ray screen, sifting out the colors of the objects to be photographed. Tests made by amateurs show excellent results, which could never be said of the old processes, which were too complicated and too difficult to appeal to the amateur photographer.

The older processes and the Lumière process of color photography are based upon the principle that all color combinations are due to the commingling of the three primary colors, red, yellow and blue. In the past it was taught that white light (sunlight) consisted of seven primary colors—violet, indigo, blue, green, yellow, orange and red, which the

teacher was wont to fix upon the memory by the word vibgyor. It is known, however, that there are only three primary colors, as indicated, and that the other four so-called primary colors are merely mixtures of the three primary colors proper, which can be graphically shown as follows:



HOW RATS AND FLEAS DISSEMINATE PLAGUE—INTERESTING EXPERIMENTS

Many persons have asked "How is it known that fleas communicate disease?" The following extract from a report of the plague investigation in India tells how the experimental work was done there. It is of interest now because of the attention that has been so forcibly directed to the subject, but there is a probability that these little pests may also at other times convey scarlet fever, diphtheria and other zymotic diseases.

Practically unanimously, students of plague epidemics have regarded the existence of the disease among rats as of significance in connection with the spread of the disease among men. It has been noted that a human outbreak has always been preceded by a pestilence among rats, and it appeared likely to the earlier writers that the rat disease was communicated to man. Sucking insects seemed the most probable means for the transmission of the disease. Various experiments have been performed tending to strengthen this belief, but actual proof was lacking until the plague committee took up the work noted below.

In order to prove or disprove the preceding theory the committee placed cages of healthy rats in the neighborhood of infected rats, protecting the former only by means of sticky flypaper or other measures to prevent fleas from getting from one cage to the other. The rats remained healthy for months. On removal of the flypaper, however, they took the disease. Attempts to rid plague stricken rats completely of fleas (in order that healthy rats might be placed

in actual contact with the diseased rats) proved to be impossible. The deficiency in the evidence was supplied, however, by experiments in which healthy rats were killed by exposure to the fleas taken from diseased rats.

Confirmatory evidence was obtained from experimental epidemics among guinea pigs, showing that there was relatively little danger of the transmission of the ordinary form of bubonic plague from one animal to another if fleas were excluded, but that the disease was readily transmitted by fleas. The rate of progress of such an experimental epidemic was in direct proportion to the number of fleas present.

In another set of experiments guinea pigs were placed in plague infected human dwellings. When allowed to run free they collected infected fleas from the floors and 29 per cent of them died. Fleas taken from these guinea pigs were placed on healthy animals. The latter became infected and died also. Animals kept in plague infected houses but protected by flea-proof screens or by sticky flypaper remained healthy.

It has been found that the flea commonly found on rats will desert them oftentimes for other animals, such as guinea pigs, rabbits or even man. Plague bacilli have been detected in the stomach and intestines of the flea. Studies made upon the flea while in the act of blood sucking disclosed the fact that this process is preceded by the injection of saliva and often accompanied by the emptying of the intestinal tract upon the skin of the animal attacked. Both of these facts increase the danger of the flea as a factor in the spread of the plague.

Cutting Timber by Electricity

A San Franciscan has found a way of felling trees and cutting lumber by means of electricity. It is very simple. A wire, said to be made from several metals subjected to a special treatment which renders it equal to platinum in resisting heat, is heated to a white heat and passed through a tree, which fells it. Afterwards the logs are cut into lumber by means of a number of parallel wires similarly heated. It sounds very plausible, and we are awaiting the outcome of some practical tests to be made soon. M. H. Newman, a graduate of the Department of Pharmacy of the Northwestern University is the promoter of the company, and is confident of success.

FACTS ABOUT PHOSPHORUS

Phosphorus, formerly classed with the organic products because of its manufacture from bones and other organic substances, has within recent years acquired a place in the long list of mineral-derived materials. The mineral from which it was first obtained was the rock phosphate which furnishes the soluble phosphate fertilizer. A fluo-phosphate or chloro-phosphate of calcium has been used in Europe and Canada to some extent, and a deposit of aluminum phosphate (wavellite) at Mount Holly Springs, Pa., has recently been mined for this purpose and successfully reduced.

The industry in this country is so young that statistics are difficult to obtain. The world's production has been variously estimated at from 1,000 to 3,000 tons a year. The greatest part of the world's supply is made at Wedensfield, England, the output of the factory being about five hundred tons a year. Other large factories are at Lyons, France, and at Griesheim and Frankfort, Germany. There is also a plant in Sweden, and six plants near Perin, in Russia, in 1890 had an output of about one hundred and forty tons.

In the United States the first phosphorus works were built at Philadelphia about forty years ago, and this plant continued in operation until recently. Another plant was established at Philadelphia in 1891, and in 1897 the English firm operating at Wedensfield established a factory at Niagara Falls. This last named plant now supplies more than fifty per cent of the domestic product. The plant at Mount Holly Springs, Pa., where wavellite is used, reports a production of 25,000 pounds a month and a capacity of 40,000 pounds. From 30,000 to 40,000 pounds of phosphorus are imported into the United States annually.

The phosphorus obtained by most commercial processes is a crude form of the white or yellowish waxy variety, containing sand, carbon, clay and other impurities, which are removed in various ways—by filtering while molten through powdered charcoal or canvas submerged in water, by forcing the molten mass through porous pottery by means of steam and by redistillation in iron retorts. Because ordinary white phosphorus is poisonous and injurious to handle other forms of the element have been sought.

A red amorphous phosphorus, which is

not poisonous, is readily prepared by heating the ordinary variety to 250 degrees C., in a closed vessel under pressure or excluded from air and water, but this has not the same properties as the white variety. A red crystalline form, which is not poisonous, and which is an efficient substitute for the white phosphorus in making matches, has recently been discovered in Germany.

Phosphorus is chiefly used for making matches, which were first manufactured on a commercial scale in 1833. Parlor matches were invented in 1848 and safety matches in 1855. The white variety of phosphorus is used for ordinary matches, but the red amorphous form is used for safety matches. Certain European countries have forbidden the manufacture and sale of the white variety, and safety matches are coming into general use.

Phosphorus is sold in the market in round sticks moulded through glass tubes, and is usually stored in water. Its uses other than for matches are for fuse composition, rat and insect poisons, phosphoric acid, and other compounds. It is also used in the precipitation of precious metals, in electrotyping and in phosphor-bronze.—**McPike's Bi-Monthly.**

A Possible Bacterial Squirrel and Gopher Exterminator

The most destructive and persistently annoying agricultural and horticultural pests on the Pacific Coast are the ground squirrels and gophers. They are destructive to all crops and appear to nullify all attempts at extermination. Arsenical and strychnine preparations, carbon disulphide, trapping, drowning, etc., have all been tried with only a temporary checking in depredations. It would no doubt be possible to prepare an exterminator, consisting of pure cultures of some microbe which will cause an infectious and contagious disease among these animals. It is reported that some fatal disease has been operating among the squirrels in the Berkeley hills during the rainy season of 1907 and 1908. From occasional reports it would appear that the disease affects the lungs of the animals, from which it is concluded that it may be tubercular or pneumonic in nature.

This is merely a suggestion well worthy careful investigation. Following out and thoroughly testing a possibility of this kind requires ability, time and money. All three are absolutely essential. It is up to some progressive university or large interested manufacturing house to look into this.

Cereus Grandiflorus in Medicine

In an apparently mad desire to wreak vengeance on those manufacturers who refuse to submit to their dictations, the men in charge of the A. M. A. organization at Chicago are even trying to make it appear that the drugs from which the products of these reculant manufacturers are made are themselves without merit. In pursuance of this policy, several well-known and widely used drugs have been the object of attack, one of the latest of which is *Cereus Grandiflorus*. As is well known, it is from this plant that Cactina pillets derive their medicinal value, and finding nothing in the methods of the Sultan Drug Co., the manufacturers of this preparation, to condemn, they have sought to undermine the business of this concern by trying to convince the physicians of the country that there are no medicinal virtues in *Cereus Grandiflorus*. This attack has caused the Sultan Drug Co. to issue a little booklet, replying to the A. M. A. attack, and showing authorities to support their contention as to the value of *Cereus Grandiflorus* for use in medicine. A copy of this pamphlet will be sent to any one scientifically interested, on application to the Sultan Drug Co., St. Louis.—**National Druggist.**

THE "DIVINING ROD"

The items that one may read in some journals regarding the "Divining Rod" so-called, are causative of a feeling akin to nausea. That an untutored rooter of the soil should believe in the efficacy of the forked hazel or willow twig in locating water and precious metals, is in a measure excusable. But what shall be said of certain medical, pharmaceutical and other related "scientific" journals that uphold such remnants of witch-craft? Such articles bring one up with a start, and the question arises, do we still live in the dark ages, or are we among lunatics? Any man of good muscular development, can make the forked twig turn in his hands at will. This has been demonstrated time and again. The assertions that the movements of the twig have anything to do with the location of subterranean or other water currents, metals, and ores is rank nonsense.

Extracts and Comments

DUTY TO SCHOOLCHILDREN

Dr. W. C. Hollopeter of Philadelphia, in a paper entitled "The Duty of the Physician to the School Child," which appeared in the *Journal of the American Medical Association* for October 19, sums up the situation as follows:

"1. The school life of the child at the present day is too complex and difficult. Too many subjects for study have been introduced, and too great a thoroughness required for the young mind. This has a tendency to unbalance development and create nervous irritability.

"2. In teaching large classes the personal equation is lost. The most valuable element of the teacher is showered on the bright child, while the backward or defective are frequently lost to sight.

"3. Teachers who fail to recognize a defective child commit a great injury by permitting the child's mind to be unemployed. This is especially true of the depraved type of children. The children in our reform schools, the great army of the police court, chronic drunkards and criminals, the tramp, vagrants, low prostitutes, are largely recruited from this class of the slightly mentally deficient who are neglected in their youth.

"4. In the gathering of classes of children of unequal capacity, the teacher fails to recognize the varied powers of attention, which is of first importance in the process of mental development.

"5. The physician should take a deeper interest in watching the mental defects and having children so afflicted properly classified. The physical defects, including those of the eye, ear, nose, should receive more attention than is now given.

"6. We as a profession are confronted with the appalling information that 120,000 defective school children exist in the United States."

Inestimable harm is done by sending young children to school and encouraging them in competitive efforts. The home is the young child's place. The parents should give it instruction in

nature study. Let the child develop normally, let it dig in the dirt, sand and soil. Show it bugs and things, trees and flowers, clouds, stars, etc. Explain nature phenomena, such as storms, rain, snow, thunder and lightning. Keep them out of school until later in life, until past the age of fourteen, if possible. It is only too true that many parents are wholly incapable and entirely unfit to bring up children. These should be cared for and taught in suitable schools and homes. But those children who have good homes and sensible parents have no business in schools, they are better off at home, under home influence. Our present school system is causative of various neuroses and defective development. We need only witness the number of school children wearing eyeglasses, with sallow complexions, narrow chests, stooping shoulders and other manifestations of unsuitable training.

SOME POINTS ABOUT HOT-WATER BOTTLES

Miers Busch, in a paper read before the American Pharmaceutical Association had a few things to say about hot-water bottles which are worthy of a careful reading. The average customer, he declared, never treats a hot-water bottle with proper consideration, and it is well to see that a caution slip is packed with every bottle sold. If a bottle is to be properly handled, the following precautions must be observed:

You must not use boiling water.

You must not fill the bottle more than two-thirds full.

You must not let any oil or grease

come in contact with the bottle inside or out.

You must not expect the bottle to stand daily use.

You must remember—

To hang up the bottle by the ring, mouth down, so as to drain and dry it out thoroughly, and with the stopper out.

That goods made of rubber must be carefully used; they will not stand abuse.

That water bottles will not last forever, but only a moderate length of time, dependent on the care they receive.

When bottles are purchased it is well to inflate them slightly—just enough to keep them from getting or looking flat. It decidedly improves their appearance when displayed for sale.

Cloth-inserted bottles are the most durable, but bottles that can be "stretched" lose shape when filled and spoil sooner if boiling water is placed in them.

Cold hardens compound goods, and many water bottles, especially those of the cheaper grades, if folded and left in a very cold place, will crack if opened quickly. Variations in temperature must be avoided, as sudden and decided changes may almost ruin an entire stock.

Tubing that will "stretch like a band" is of little use for fountain syringes. Flexibility is more important, and the wall should be heavy enough not to kink. Elastic tubing usually has a thin wall and kinks readily.

It is best to pack all water bottles, fountain syringes, and similar goods in flat boxes and then keep the boxes flat. Never store them on the side or the end.

A New Poison Bottle

The Owl Drug Company of San Fran-

cisco, Oakland and Los Angeles has adopted a new bottle for all liquid poisons sold under their label. It is made of deep blue glass and triangular in form, so that in the daylight its color, and in the dark its form, shall instantly warn any one taking hold of it that it contains poison. Many years ago Whittall Tatum Co. made for the same purpose a round bottle, also of blue glass, but with protuberances all over it except on a small space left for the label.

These devices are good, but in spite of all the precautions druggists take, purchasers will sometimes use these bottles for other things after the original contents have been used or thrown out. Eternal vigilance alone is the price of safety.

The Commercial Club of Minneapolis, in a circular sent to the merchants of the Northwest, says, in reference to the Parcels Post bill, and the activity of the mail-order houses to secure its enactment:

The founder of one of the Chicago mail-order houses is credited with having said ten years ago: "Give me forty years of business and I will make every city outside of Chicago a village, every village a hamlet and every hamlet I will wipe off the face of the map." In the ten years that have passed the growth and development of country towns have been retarded beyond all computation, and the tendency now is toward centralization of business in the retail catalogue houses of large cities. Do you believe that this was done by honest competition? Can any one doubt that with thirty years more of the same kind of retarded growth and suppressed development this boastful assertion will become a startling reality?

Congressman Loud, who is one of the best informed men in this country on postal matters, after making a tour in England, had this to say about the Parcels Post:

Those who favor Parcels Post say that England, France, Germany and other countries have the system, and that it works well.

That may be true, but the conditions, geographically and socially, are wholly different. In these countries the population is concentrated and the distances are not great.

Impractical in the United States

These conditions might make the system practicable and profitable there, while our conditions would make it impracticable and unprofitable here.

The officials in the countries named do not know whether the system is profitable or not. I have been credibly informed that as far as England is concerned (and that is the only country that attempted to find the cost), so long as a separate account was kept of the service it was found to be conducted at a considerable loss, and **the only way in which it could be held to be a great success was to quit bookkeeping.**

A government that has the taxing power can do this, but an individual that has to furnish the resources could not maintain his credit long under this method.

THE HEPBURN BILL

In the House of Representatives, March 6, 1908, Mr. Hepburn introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce and ordered to be printed.

A BILL

To promote the efficiency of the Public Health and Marine Hospital Service.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That hereafter the pay and allowances, including longevity, of the commissioned medical officers of the Public Health and Marine Hospital Service shall be the same as the pay and allowances, including longevity and excepting forage, of the commissioned officers of the medical department of the Army, as follows: Surgeon-General, that of the Surgeon-General of the Army; assistant surgeon-generals, that of assistant surgeon-generals of the Army; ten medical directors, that of deputy surgeon-generals of the Army; surgeons, that of surgeons of the Army; passed assistant surgeons, that of assistant surgeons with the rank of captain in the Army; assistant surgeons, that of assistant surgeons with the rank of first lieutenant in the Army. Vacancies in the grade of medical director shall be filled by promotion after satisfactory examination from the grade of surgeon and in the order of seniority of said grade.

Sec 2. That when any commissioned medical officer in the Public Health and

Marine Hospital Service has reached the age of sixty-four years he may, upon his own application or in the discretion of the President, be retired, and his place on the active list shall be filled by promotion, and in the event of permanent disability of the Surgeon-General, as determined by a board of commissioned medical officers of said Service appointed by the Secretary of the Treasury with the approval of the President, he may be retired and the vacancy in this grade shall be filled by appointment by the President as now provided by law from the corps of commissioned medical officers: **Provided,** That the pay and allowances, including longevity, of said officers after retirement shall be the same as that allowed by law and regulations to retired medical officers of like grade in the Army. Officers so retired may be assigned, in the discretion of the Secretary of the Treasury, to such duties as they may be able and willing to perform, and when thus assigned shall receive the pay and allowances of their grade when on the active list.

Sec. 3. That the officers in charge of the divisions of zoology, pharmacology and chemistry, in the Hygienic Laboratory shall be entitled to leaves of absence and waiting orders as now allowed by law and regulations to commissioned officers of the Service, and their pay, and allowances of longevity, and commutation shall be the same as those received by professors of the Military Academy at West Point. The division of pathology and bacteriology shall be in charge of a commissioned medical officer as now provided by regulation.

It is proposed to amend section 3 to read as follows:

Sec. 3. That the officers in charge of the divisions of zoology, pharmacology, and chemistry, in the Hygienic Laboratory (and the pharmacists of the Public Health and Marine Hospital Service) shall be entitled to leaves of absence and waiting orders as now allowed by law and regulations to commissioned officers of the Service, and their pay, and allowances of longevity, and commutation shall be the same as those received by professors of the Military Academy at West Point. The division of pathology and bacteriology shall be in charge of a commissioned

medical officer as now provided by regulation.

Wood Alcohol Fatalities

Judge Williams of Maricopa was awakened suddenly one night two weeks ago by a section hand and informed that his presence was wanted at a car loaded with wood and grain alcohol.

"There is a hobo dead in the car," explained the man.

Judge Williams summoned Conductor Sparks of the Maricopa and Phoenix road and told him to gather up a coroner's jury. As the population of Maricopa does not permit of twelve men being found at a minute's notice, Sparks gathered in four hoboes to sit on the panel and acted as foreman.

When the car was reached it was learned that one more tramp had died from the effects of imbibing wood alcohol.

The jury was impaneled and Judge Williams, leaning over to Sparks, whispered, "Wood alcohol the cause."

Sparks said promptly:

"We, the jury, find that the deceased came to their death through wood alcohol poisoning."

At this one of the hoboes jumped from his seat, gave an unearthly shriek, shouting:

"White line, by heavens, I have been drinking it, too," and fainted.

He was revived, assented to the verdict, and shortly afterward died. Another hobo who was also on the jury died, and the four that were left started at a speedy pace for Yuma. They, too, succumbed to the effects of the wood alcohol before they reached the river.

That car was responsible for eight deaths.

Also a Reformed Spelling

The much discussed phonetic spelling reform never took well. Perhaps an inverted spelling reform, just the opposite of the phonetic reform, would be appreciated. We offer a few words constructed along such a line: Eph-eighphth, esspthareyyphth, areeighphth. In ordinary, unreformed English, the spelling would be "fat," "street" and "rat." To explain the first word: eph is *f* in Joseph, eigh is *a* in sleigh, and phth is *t* in phthisis. It is quite simple.

Spirit of the Law

The Sunday closing movement has reached Hillyard, Wash. The saloons have been closed on Sunday ever since the town was incorporated, but now other places of business will be asked to comply with the law. The drug stores have consented to confine their Sunday sales hereafter to drugs, patent medicines and the filling of prescriptions. No cigars, confectionery or stationery will hereafter be sold by them on Sunday.

PRELIMINARY EDUCATION OF BRITISH PHARMACISTS

The Royal Pharmaceutical Society of Great Britain, whose council is the examining and licensing body, does not now conduct the preliminary test, but requires candidates for the minor and major examinations to present certificates showing that they have passed the examination of some legally constituted examining body in the following subjects: English grammar, Latin, a modern foreign language, arithmetic, algebra and Euclid.

A Significant Advertisement

The following advertisement appears in the **Alumni Notes** for March, 1908:

For Sale

The Central Drug Store. Being unable to secure a reliable drug clerk, I'll sell (at a loss) my Weissport store (worth \$3,500.00) for \$2,250.00. \$1,000.00 cash, and two (2) notes of \$625.00 at 4% interest. Rent \$20.00, heat included. Business 1907, \$4,742.89. Full prices for patents, etc.

F. P. SEMMEL, Jr., Leighton, Pa.

Reliable drug clerks must be as scarce in Pennsylvania as they are on the Pacific Coast.

Drug Complexions

"Cinchona has the swarthy patient, dark hair, despondent and gloomy, and is similar to coca in its melancholy."

"Kali bichromicum patients are fat, light-haired, blue-eyed, of sensitive skin, and of the lymphatic temperament."

No, the above are not excerpts from a witch's diary. They are verbatim quotations from a homœopathic medical journal, date March, 1908.

Correspondence and Queries

March 23, '08.

Editor Pacific Pharmacist:

My Dear Sir: Just a few questions, the replies to which, if published in **The Pacific Pharmacist**, I think will be of interest to the trade in general.

(1) Can a saloon, soda stand or other such business stands sell a dose of Bromo-Seltzer by the glass? This would constitute the dispensing of medicine, in my opinion—is that your view?

(2) Can a saloon keep on tap a bottle of F. Ext. Cascara and sell it by the dose?

(3) Can a saloon keep a supply of quinine pills and sell on demand quinine and whisky—say two pills and a drink?

If a person goes to a saloon with a bottle and asks for 25 cents whisky, does it have to be labeled "whisky" and the percentage of alcohol?

What about gin and brandy?

Yours truly,

Registered Pharmacist.

We referred the above to the Board of Pharmacy, and received the following reply:

California State Board of Pharmacy
San Francisco, Cal., April 2, 1908.

Pacific Pharmacist, Pacific Building, San Francisco, Cal.—Dear Sir: In regard to the retailing of Bromo Seltzer in broken packages by those not pharmacists, we believe the same may be permitted, as this preparation is registered in the United States Patent Office.*

Regarding the right of any one but a registered pharmacist to retail or sell a dose of fluid extract of cascara or

quinine pills, this is a direct violation of the Pharmacy Law and cannot be permitted.

In relation to labeling whisky, etc., with the percentage of alcohol, we do not consider this necessary for any alcoholic liquor, but would refer you for further information to the State Board of Health.

CALIFORNIA STATE BOARD OF PHARMACY.

EXAMINATION QUESTIONS

Louisiana Board

The questions of the Pennsylvania Board will be published in our next issue.

Pharmacy.—1. (a) What is solution? (b) What is a saturated solution? (c) A supersaturated solution? (d) Give example wherein the presence of a dissolved body will favor the solution of another substance. (e) When it will not favor same?

2. (a) What are syrups? (b) How many official syrups are there? (c) What official syrup is made by maceration? (d) How many methods of making syrups are recognized by the U. S. P.? (e) Describe the process of making syrup wild cherry bark, U. S. P.

3. (a) What are spirits? (b) In how many ways are the official spirits made? (c) What is the most usual method of making them? (d) In making spirits what is the object of maceration? (e) What official spirits are made by distillation?

4. (a) What are tinctures? (b) In what different ways are official tinctures made? (c) Give the official name, formula, and describe the process of making tinct. cinchona compound. (d) For what purpose is glycerin used in tinctures? (e) What official tincture is made by simple solution?

5. (a) Describe the method of making syrup ferrous iodide. (b) Give percentage strength of ferrous iodide in finished product. (c) What impurity is it liable to contain, and how may its presence be detected?

6. (a) What are collodions? (b) How many are official and what are their names? (c) Give formula and mode of making collodion.

7. (a) What is filtration? (b) How does filtration differ from clarification? (c) How does it differ from colation? (d) Name five filtering mediums. (e) What is the liquid that passes through the filter called?

8. Give the official names of the finished preparations and state the ingredients which enter into each of the following: (a) Sydenham's Laudanum; (b) Brown Mixture; (c) Fowler's Solution; (d) Lugol's Solution; (e) Donovan's Solution.

*See State Pharmacy Law, Sec. 12.—Ed.

9. Complete the following formulas and name the official preparation represented in each case:

- (a) Compound Ext. Colocynth.....60 grammes
 Ext. of —.....30 grammes
 — Jalap 30 grammes
 — Leptandra 15 grammes
 Resin 15 grammes
 Oil 8 Cc.
 Diluted alcohol, q. s. to make 1000 pills.
- (b) —, in No. 60 powd.....10 grammes
 Powd. opium 10 grammes
 Sugar of milk in No. 30 powdr.80 grammes
 Mix and make 100 grammes

10. (a) Define extraction. (b) Name the operation by which it is accomplished. (c) What is percolation? (d) What is the object of moistening a powder before subjecting it to percolation? (e) What is the liquid called that is used in extracting a drug?

Weights and Measures.—1. Write a prescription calling for two dozen capsules of phenacetin and salol, each $2\frac{1}{2}$ grains, giving amounts in both apothecaries' and metric system of weights.

2. What is the percentage strength of a solution made by dissolving 62.5 grammes of KI in 187.5 cubic centimeters of water?

3. Explain the difference, if any, between 0.003 gramme, 1-20 grain, and 3 milligrammes.

4. Write out a description of the metric system embracing answers to the following: its origin and history; what are the units of measure, capacity, and weight, and their equivalents in ordinary measures?

5. Find the total value of the following, giving amounts in avoirdupois ounces: 0.6 of a centigramme, 10.0 kilogrammes, 5 milligrammes, and 2 hectogrammes.

6. How many degrees Fahrenheit in 68° C., and how many degrees Centigrade in 17° Fahrenheit.

7. How much of each ingredient would you take in making 5 pounds apothecaries' of a mixture of talcum, 87 parts; starch, 8 parts, and salicylic acid, 5 parts.

8. Write a prescription for a 4-fluid ounce mixture containing potassium iodide, compound syrup of sarsaparilla, and mercuric iodide, and place the metric equivalents of each ingredient next to the ordinary measure.

9. (a) Explain the difference between weight and volume. (b) What is a hydrometer?

10. What are the requirements of the Louisiana State Board of Pharmacy for (a) registered pharmacists and (b) qualified assistants?

Chemistry.—1. (a) From what is carbolic acid obtained and how? (b) Give its chemical formula.

2. (a) What chemical reaction takes place in making official liquor magnesii citratis, and why should it be made fresh? (b) What chemical reaction takes place in making liquor potassii arsenatis, and what is the dose?

3. Give the official source and chemical formula of each of the following: (a) borax, (b) plaster of paris, (c) salol, (d) cream of tartar.

4. (a) Give an example of an official prep-

aration containing iron in the **ous** condition and explain its manufacture. (b) Give an example of an official preparation containing iron in the **ic** condition and explain its manufacture. (c) Discuss chemically the **ous** and **ic** compounds of iron.

5. (a) Mention a chemical test for detecting impurities in gossypium purificatum. (b) Mention a chemical test for detecting impurities in acidum salicylicum.

6. Explain the chemical difference, if any, between the official forms of alumen.

7. (a) Give the source of lead. (b) What is litharge? (c) What is red lead? (d) Explain the chemical or physical difference, if any, between the above substances.

8. (a) To what class of oils does oleum morrhuae belong? (b) What is its chemical composition?

9. Mention an official basic hydroxide, an acid hydroxide, and a neutral salt.

10. Give the chemical definition and official requirements of aqua destillata.

Materia Medica.—1. Name eight official alkaloids, each from a different drug, giving the source and dose of each.

2. (a) What are volatile oils? (b) Give the general method for preparing them. (c) Give a simple test to distinguish them from fixed oils. (d) Name five that are official. (e) Name two that are heavier and two that are lighter than water.

3. (a) What are fixed oils? (b) Give general method of preparing them. (c) How do they differ from volatile oils? (d) Name four of vegetable and one of animal origin that are official. (e) Name two that are soluble in alcohol.

4. Frangula: Give the common name, natural order, habitat, part of the plant used, constituents and properties. Why should the official part of the plant be kept one year?

5. Give the dose and antidote of each of the following: (a) tinct. aconite, (b) sulphate strychnia, (c) arsenous acid, (d) tartar emetic, (e) tinct. iodine, (f) corrosive sublimate, (g) creosote, (h) cocaine, (i) tinct. opium, (j) sugar of lead.

6. Give the official name of each of the following: burdock, croton oil, spirits of nitroglycerin, ox-gall, soft soap, litharge, castor oil, wahoo, cold cream.

7. (a) From what plant is ipecac root obtained? (b) Upon what constituent does it depend for its physiological action? (c) How may it be distinguished physically from all other roots? (d) Name its chief preparations. (e) Give the dose of each.

8. Give the common name of each of the following and state what part of the plant is used: rhus toxicodendron, lappa, asclepias, eupatorium, carum, rhamnus purshiana, ficus, santalum, rubrum.

9. Define the following terms and give an example of each: (a) aphrodisiac, (b) clyster, (c) emollient, (d) revulsive, (e) vulnerary.

10. Digitalis: (a) What part is official? (b) What are the U. S. P. requirements as to age of leaf? (c) What is its habitat? (d) Give its medicinal properties. (e) Give official preparations and dose of each.

CALIFORNIA DRUG CLERKS' ASSOCIATION REPUDIATES SELLERS OF HABIT-FORMING DRUGS

The following preamble and resolutions were adopted at the meeting of the California Drug Clerks' Association, held Friday, April 3, 1908:

Whereas, Under an act "To Regulate the Sale of Poisons in the State of California" it is unlawful to retail morphine, codeine, heroin, cocaine and preparations of opium containing more than two grains to the fluid ounce, unless upon the prescription of a registered physician, dentist or veterinary surgeon of this State, and

Whereas, Any person adjudged a violator of this section is guilty of a misdemeanor and subject to a fine or imprisonment or both, and

Whereas, Information having reached us that certain drug firms in this State have directed their clerks to violate said section, thereby subjecting said clerks to the risk of arrest, trial and conviction, which is foreign to the duties and responsibilities of their position, and

Whereas, This Association places itself on record as being in hearty accord with the provisions of this law as a step along the right road to stamp out the excessive use of narcotic drugs, with their debasing and demoralizing effect; therefore, be it

Resolved, That the California Drug Clerks' Association, though always advocating to its members faithful service and an earnest interest in their work, do hereby urge on each and every one of its members, as a matter of principle as well as law, to refuse to indulge in such nefarious practices, thereby possibly subjecting themselves to humiliation and disgrace.

FOOD INSPECTION DECISION 88

Private Importations

Recently certain shipments of foods and of drugs have been offered for entry into the

United States, and an examination has disclosed the fact that they were adulterated or misbranded under the food and drugs act. The shipments were refused entry into the United States, whereupon representations were made to the Department that the materials were for consumption by importers or for free distribution among the friends or employees of the importers, and not for trading purposes, and the Department was requested on this account to allow the entry of the misbranded or adulterated food or drug.

The provisions of the food and drugs act make no distinction between foods and drugs imported for consumption or free distribution by the importer and foods and drugs imported for trading purposes. The law provides that no misbranded or adulterated foods or drugs shall be admitted.

FOOD INSPECTION DECISION 89

Amendment to Food Inspection Decision 76, Relating to the Use in Foods of Benzoate of Soda and Sulphur Dioxid

The question of the addition to food of minute quantities of benzoate of soda and of sulphur dioxid will be certified immediately by the Secretary of Agriculture to the Referee Board of consulting scientific experts.

Pending determination by the Referee Board of the wholesomeness or unwholesomeness of these substances, their use will be allowed under the following restrictions:

Benzoate of soda, in quantities not exceeding one-tenth of one per cent, may be added to those foods in which generally heretofore it has been so used. The addition of benzoate of soda shall be plainly stated upon the label of each package of such food.

No objection will be made to foods which contain the ordinary quantities of sulphur dioxid, if the fact that such foods have been so prepared is plainly stated upon the label of each package.

An abnormal quantity of sulphur dioxid placed in food for the purpose of marketing an excessive moisture content will be regarded as fraudulent adulteration, under the Food and Drugs Act of June 30, 1906, and will be proceeded against accordingly.

Food Inspection Decision No. 76, issued July 13, 1907, is hereby amended accordingly.

GEO. B. CORTELYOU, *Secretary of the Treasury.*

JAMES WILSON, *Secretary of Agriculture.*

OSCAR S. STRAUS,

Secretary of Commerce and Labor.

Boards of Pharmacy and Societies

REPORT OF THE CALIFORNIA COMMITTEE ON PACIFIC COAST PHARMACEUTICAL ASSOCIATION

The California Committee on the Pacific Coast Pharmaceutical Association, appointed by the President of the California Pharmaceutical Association on November 14, 1907, met in the Pacific Building, San Francisco, March 2, 1908, and adopted the following resolutions and recommendations.

1. That the aims, purposes and provisional outline of organization as presented in the November issue of the **Pacific Pharmacist** be approved with the following changes in the proposed Constitution:

Article I. The name Pacific Coast Pharmaceutical Association to be changed to Pacific Pharmaceutical Association (P. Ph. A.).

Article II. Omit Section 6.

Omit Article III.

Article IV. Omit the word "annually."

Article VI. Change the word "six" to "five."

Omit Article VIII.

Article IX. Omit last sentence.

Omit Article X.

2. That there be no membership fee.

3. That the expense of the meetings of the Pacific Pharmaceutical Association be met by the several state and territorial pharmaceutical associations represented.

4. That the meetings of the Pacific Pharmaceutical Association be held at the same time and place as the meeting of a state association, decided upon at a previous meeting.

5. That this committee invite simi-

lar committees or appointed delegates from other state pharmaceutical associations, to meet in Oakland, Cal., on the morning (10:30 a. m.) of May 21st, at the time and place of the meeting of the California State Pharmaceutical Association, for the purpose of effecting a definite organization. In case such committees or delegates cannot possibly attend, they may submit opinions and suggestions in writing or they may appoint a substitute or substitutes who shall be empowered to represent their interests at the joint meeting of the several committees at the time and place named above.

The recommendations of this committee are subject to the approval and action of the California State Pharmaceutical Association and the joint committee representing other state pharmaceutical associations.

ALBERT SCHNEIDER,
Berkeley, Cal.

R. A. LEET,
Oakland, Cal.

VAL. SCHMIDT,
San Francisco, Cal.

W. M. SEARBY,
San Francisco, Cal.

J. A. SANFORD,
Stockton, Cal.
Committee.

CALIFORNIA PHARMACEUTICAL ASSOCIATION

The committees having in charge the arrangements for the meeting of the California Pharmaceutical Association are all united in an effort to make this the largest, most enthusiastic and best meeting of druggists ever held in the State. At this writing

we learn from the Committee on Entertainment, of which Mr. Fred Taylor is chairman, that their proposed programme of entertainment for both ladies and gentlemen includes trolley rides, luncheons, cruise and visit to the fleet and theatre parties, ending with a good banquet and dance.

The local committee on papers, of which Mr. W. B. Phillip is chairman, have been promised many live and interesting ones on such subjects as are of interest to druggists in the conduct of their daily business affairs.

The only cost that the visiting druggists will have to bear will be their hotel expenses, and favorable special rates have been obtained for these. The local committee extend a cordial invitation to **all the Druggists of the Pacific Coast**, and are anxious for the opportunity to give a generous welcome and enjoyable entertainment.

The whole arrangements are in the hands of committees, of which the following gentlemen are chairmen:

I. Tobriner, General Chairman.

W. A. Wishart, Finance.

A. L. Leber, Publicity.

R. A. Leet, Exhibits.

F. Taylor, Entertainment.

J. Maclise, Reception.

W. B. Philip, Papers.

Persons desiring additional information on any of these matters should communicate with one of the above.

Another interesting and profitable feature of the meeting will be the exhibit of pharmaceutical and drug products. The promises already received insure a good display.

The Woman's Pharmaceutical Association met at the home of Miss Nelson, March 27th.

The meeting was well attended. Among the members present were Mrs. Goodman, Mrs. Philip, Misses Goodman, Nelson, Mer-

riam, Dolcini, Cardwell, Farrell and Roehr.

Miss Cardwell read a very interesting paper on Camphor. After showing the desirability of a synthetic camphor, Miss Cardwell spoke of several processes for its manufacture and the various tests for its identification.

The next meeting will be held at the home of Mrs. Philip, 1910 Fruitvale Avenue, Fruitvale, April 24th, 8 o'clock.

CLARISSA M. ROEHR, Pres.

PROSECUTIONS BY THE STATE BOARD OF PHARMACY

The State Board are vigorously enforcing the Poison Law, especially Section 8, which prohibits the sale of morphine, cocaine, heroin, etc., without a physician's prescription. Many arrests have been made and convictions secured in San Diego, San Bernardino, Fresno, San Jose, Sacramento, Los Angeles and other towns, and now over a score of arrests have been made in San Francisco and Oakland. We hope these prosecutions will result in putting a stop to the sale of all habit-forming poisons. Previous prosecutions, accompanied by the imposition of heavy fines, have failed to eradicate the evil, but we understand that the present Board intend to follow up these offenders until it will be unprofitable to carry on the nefarious business any longer.

California Pharmaceutical Association, Oakland, May 19th.

Pacific Pharmaceutical Association, Oakland, May 21st.

The next meeting of the **State Board of Pharmacy** will be at Los Angeles, June 8th, and at San Francisco, June 15th.

Book Notices and Reviews

Foods and Their Adulteration, by Harvey W. Wiley, M.D., Ph.D., 625 octavo pages, eleven colored plates and 86 other illustrations. P. Blakiston's Son & Co., Philadelphia, 1907.

This is a most valuable addition to our knowledge of foods and their more common adulterants. The work has received some very adverse criticisms, but these criticisms emanate largely from those who see only the hole and lose complete sight of the doughnut.

Part I treats of **meats** commonly used as food and is a most excellent summary of the chemical composition of meats, the nature of preparing and preserving them; drying, pickling, potting, canning, parboiling, tinning, sterilizing, etc. The normal appearance of cuts of beef tenderloin, sirloin, ribs (regular cut and Spencer cut), sirloin butts, rib and loin, are shown in seven beautifully colored plates loaned by Armour & Co. The different grades and kinds of lard are carefully defined; soups, chowders, beef extracts, soluble meats, blood preparations, are defined. The chapter is most carefully written and is the most valuable treatise on the subject yet seen.

Part II treats of **poultry and game birds**, and though fully as clearly treated as the chapter on meats proper, we regret that it is not more complete or full. That is no doubt due to the fact that this food group has received less attention on the part of chemists and other scientific investigators. In this chapter the possible toxicity of fresh eggs is explained. Slaughtering for the market, meat and egg preservation, etc., are explained.

Part III treats of **fish foods**, and, though most excellent, we believe that the quick and easy deterioration due to microbic invasion of fish meats, of mussels, oysters, crawfish, lobsters, etc., is not sufficiently emphasized. The general indigestibility and unwholesomeness of the group of "shellfish" are not sufficiently set forth.

Part IV treats of **milk, milk products and oleomargarine**. It is clear and complete. The discussion of cheese is most interesting from the bacteriological standpoint.

Part V on **cereal foods** is perhaps lacking in detail. For example, nothing is said of

the nature of the composition and preparation of the more important breakfast foods. Nothing is said of puffed rice, which is a comparatively new breakfast food prepared along modern scientific lines. The modern "puffing" of rice has a direct bearing on the popping of popcorn. The author states that in the popping of popcorn there is produced "a soft and very delicate edible material," which is true of the portion of the kernel which is actually popped, but what about the outer hard, scaly coat? This has been responsible for many a case of severe gastritis, enteritis, and appendicitis, and even death in children. The nature and chemical composition of bread and related products is explained.

Part VI treats of **vegetables, condiments, fruits**, and **Part VII** treats of **vegetable oils, fats and nuts**. The subjects are fully treated.

Part VIII treats of **fungi** as foods. While it is well written, we believe that the importance of these foods (?) is entirely overestimated. A toadstool taste is abnormal and to be discouraged, rather than encouraged. The author gives a brief historical review of the subject. It seems that from remotest antiquity fatal cases of poisoning, due to eating these degenerate plants, have been noted. These plants should not be used as food. Leave them alone.

Part IX treats of **sugar, syrup, confectionery and honey**. Sugar-beet and cane culture and sugar manufacture are explained. On page 459 there is a reprint of the faulty map issued by the Department of Agriculture showing the sugar-beet zone of the United States: faulty, because it marks areas in which sugar-beets cannot be grown, and omits many areas in which sugar-beets will do well. The chapter is complete and most replete with important information regarding confections and their adulterants.

Part X on **invalids' and infants' foods** is not sufficiently complete to be of any considerable value. There is a most excellent table showing the composition of infant foods, but it is of little value because policy would not permit giving the names of the foods examined.

Appendices A-D treat of **standards of purity** for food products established by the

Department of Agriculture, rules and regulations for the enforcement of the food and drug act, regulations governing the inspection of meat and laws under which these regulations were made, and food inspection decision (1-64). These appendices are of great importance to those who are not fully informed regarding the Federal Pure Food and Drugs Act.

We have no hesitation in pronouncing this a most excellent work, one which should be carefully studied by every one interested in pure foods. It is to be regretted that drugs are not mentioned, excepting such as are primarily foods, and for this reason the book is of no special value to pharmacists in estimating the purity of drugs. Of course, this is not to be considered as a criticism of this estimable work, since it is specifically stated that it treats of foods only.

A. S.

Walking a Fine Art, by Edward F. Bigelow; 164 small octavo pages, six full-page half tones. H. M. Caldwell Company, New York and Boston, 1907.

The reviewer is in receipt of an autograph copy of this handsome work. It is a strong plea for nature-study. It is dedicated to the fellow-naturalists who have contributed to it. It is a book which cannot help to do good. It leads away from the competitive nerve strain of business life, and takes us to nature where we may enjoy rest and peace. It is a book which cannot help to be appreciated by every busy man.

A. S.

Compositæ of Southern California, by Harvey M. Hall. Univ. Calif. Publications in Botany, Vol. 3, No. 1; 302 large octavo pages and 3 plates. Berkeley, 1907.

This is a monograph of the sunflower family as represented in Southern California. According to this work, there are 445 species, varieties and forms in the area named. The descriptions of species are clear and concise and the keys to the tribes and genera are easily usable. Print and paper are of the best. Paper binding.

Professor Hall is one of the best authorities on systematic botany on the Pacific Coast, and this volume does him credit.

A. S.

Window Displays for Druggists. Edited by Harry B. Mason, editor of the "Bulletin of Pharmacy."

This is a new book describing 109 se-

lected displays actually used by druggists throughout the country—illustrated with handsome photographic engravings. There are also several practical chapters devoted to the subject of window dressing in general and written by men of experience. It is an invaluable book for druggists who realize that the window presents the best and the cheapest advertising medium at their disposal. Good window displays mean more business—more money—more sales. The book contains 176 pages, 109 engravings, is printed on fine coated paper, bound substantially in cloth boards. Postpaid, \$1.00. E. G. Swift, Detroit, Mich.

A Poetic Souvenir

The Enno Sander Mineral Water Co., of St. Louis, have just issued a very elegant souvenir, commemorative of the eighty-sixth birthday of their president and manager, Enno Sander, Ph. D. An excellent photo of this gentleman appears on the front page, showing him to be still the same bright, keen, shrewd, energetic, but withal kindly and genial man of affairs, that he was thirty years ago. We quote from a letter from his old friend, Professor G. F. Lydston, M. D., of Chicago, who, by the by, has a way of breaking out into verse when the warmth of his feelings is too great for prose. This is the way he wished Dr. Sander long life:

Away up yonder, where the heavens lie,
In the eternal land of bye and bye
Is set apart a throne—a brilliant star—
For thee, creator of the Garrod Spa.
Long may it be ere thou shalt claim thine own—
Desert thy friends and sit upon that throne.
So when thou totterest on the eternal brink
Stay yet a while, and make that wondrous drink—
Without thee the world would be a lonesome place,
And without Spa the "finish" of the race.

Referring to a poem which he wrote some years since, entitled *Twinkle, Twinkle Garrod Spa*," Dr. Lydston says:

Twinkle, twinkle, Garrod Spa,
I've not forgotten what you are:
Still a cure for sand and gravel,
However fast a pace we travel:
Specific thou for clogged-up veins,
A panacea for aches and pains.

We can't write as catchy verses as Dr. Lydston, but we can and do congratulate Dr. Sander on his wonderful mental and bodily vigor, and wish him the enjoyment of them for a great many years to come.

THE PACIFIC PHARMACIST

\$1.50 a year Subscribe yourself and get your friends to do the same.

Personals

Frank S. Hereth with Lilly

February 1st, Mr. Frank S. Hereth joined the scientific staff of Eli Lilly & Company as consulting pharmacist. Probably few of Mr. Hereth's many friends are aware that in entering the Lilly laboratories he is returning to the institution where he received his first training in manufacturing pharmacy. In 1880, as a boy, Mr. Hereth originally entered the employ of Eli Lilly & Company, then a very small concern. During the following eight years he was engaged part time with Lilly and part time in the wholesale drug line. In 1888 he became associated with G. D. Searle, then at Anderson, Indiana, and the



FRANK S. HERETH

two removed to Omaha, Neb., where they started in the manufacture of pharmaceuticals. Two years later, Searle & Hereth removed their business to Chicago, where it was conducted a number of years. In 1905 Mr. Hereth sold his interest in The Searle & Hereth Company, and removed to Brooklyn, New York, to become superintendent of the laboratory of E. R. Squibb & Sons, where he remained until January 1, 1908. Mr. Hereth is an active participant in movements for the advancement of pharmacy. In 1890 he became a member of the faculty of the Chicago College of Pharmacy as professor of pharmaceutical tech-

nology, holding this position for nine years. As lecturer and teacher, Mr. Hereth was very successful, enjoying a great popularity with his students, all of whom he made personal friends. In returning to Eli Lilly & Company in Indianapolis, Mr. Hereth is again in the home of his boyhood, among old friends and in pharmaceutical connections congenial to his tastes.

Mr. C. J. Becht, "Soda Fountain Becht," is sending out a very humorous descriptive brochure extolling the merits of the product of the American Soda Fountain Company. Mr. Becht has represented that firm in this territory a great many years and has made an enviable reputation for his house as well as for himself.

A. A. Boomhower and O. R. Wood of Seattle have purchased the store and business of E. A. Roberts, Monroe, Wash., and will conduct the same under the name of Boomhower & Wood.

Dr. W. E. White of Colton, Wash., has sold his stock of drugs to **Dr. C. B. Jones**, a graduate of the American College of Medicine and Surgery, Chicago, who has been practicing in Durango, Mexico, for the past two years. Dr. White will move to Spokane.

Max H. Sobel has opened a magnificently appointed drug store in Berkeley. It is on the corner of Telegraph Avenue and Bancroft Way, in the new Marshall building.

Frank R. Shrader of Salt Lake City filed a petition in bankruptcy. His liabilities are given as \$1,981.18, against assets of \$2,000, insurance policy and \$30 household goods, both of which he claims are excepted.

The Merced Drug Company have added some new and very handsome show cases to the equipment of the drug store, giving that popular pharmacy a modern and up-to-date appearance. The new show cases are beauties.

D. A. Roberts has completed arrangements for the opening of the new Roberts Brothers' store in the old Kirn stand on Hewitt Avenue, Everett, Wash. An up-to-date pharmacy will be installed and the soda fountain now on the premises will be continued.

J. V. Leithold, of Woodland, who always has a good time when visiting San Francisco, always has a good word to say of the metropolis, spent a few days in San Francisco, but had to return sooner than expected on account of illness.

Clarence Howland, of Cousins & Howland, of Hanford, was shaking hands with his host of friends in San Francisco.

F. W. Mixter, of Exeter, at one time in business in San Francisco, was a recent visitor in this city.

N. L. A. Cody, accompanied by Mrs. Cody, with the usual number of jokes, only complained of the dust. Otherwise "all right, thank you."

C. L. Morgan, of Halfmoon Bay, expert fisherman and also druggist, has his eye cast on the calendar watching for May to come around so that he may enjoy piscatorial sport and tell a few fish stories.

J. A. Hughes, of Bakersfield, who is always good natured, was giving his friends in the city the glad hand a few days ago.

T. R. White, of Sebastopol, was in town a few days ago looking the picture of health and prosperity.

W. E. Calahan conducts a drug store six days a week and on the seventh usually spends in San Francisco. Is it possible that there is anything in the wind?

Benjamin Fernish, manager of Oberdeen-er's drug store in Santa Clara, is a frequent visitor in the city.

H. L. Chandler, of Palo Alto, was in the city a few days ago, and reports business very satisfactory.

Otto Monron and wife of Sonora, spent a few days in this city, and is very much surprised at the progress that is being made toward the rebuilding of the city.

J. A. McDonald, for several years with the City Drug Store of Sonora, is now manager for Eddy & Co., of the same place.

Doesn't Want Pure Food Law Changed Editor **The Pacific Pharmacist**:

The Food and Drugs Act of June 30, 1906, commonly called the Pure Food Law, is demonstrating its value every day and every reasonable person must admit that the law, as a whole, is a most excellent thing. While in minor points it might easily be improved, the danger in tampering with a law lies in the fact that when they once begin our lawmakers

never appear to know when to stop. With this in view, we think it would be wise for Congress to allow the present law to be thoroughly tried before changing it, and to bring the matter to the attention of the lawmakers. The writer has written to all the Missouri Congressmen a letter, of which the enclosed is a copy.

[Copy.]

Hon.....

WASHINGTON, D. C.

Dear Sir:

While I fully realize that every Congressman's constituency apparently requires him to prove his energy by the introduction of some certain bill or bills, will it be impertinent of me to suggest that there are already enough laws to make this a most excellent time to do nothing in this line, but to let the other branches of the Government put into effect the laws already on the statutes? I consider this particularly true as to laws which have been untried, and to which I understand many amendments and additions will soon be proposed. Especially does this apply to the Food and Drugs Act of June 30, 1906. I do not believe that the business of the country is in such a flourishing state at present that further interference with old customs and methods is desirable, but, on the contrary, I believe that it would be the part of wisdom to allow present laws to be thoroughly tried before changing them. I trust that you also feel this way, and that you will not encourage or support such measures as will tend to upset or make still more uncertain, present business affairs.

Hoping that these suggestions will be received in the same kindly spirit in which they are offered, I remain, with best of good wishes, ever

Sincerely yours,

THE ANTIKAMNIA CHEMICAL CO.,
FRANK A. RUF, Prest. and Treas.

We publish the above because we fear too much legislation on this subject. The law is good as it stands, though capable of improvement. Yet we think that no change should be made by the present Congress. Let us see how the present law works before we tinker it up. These constant changes harass manufacturers and merchants, occasioning them great loss. "We'd better hide a wee."



COFFIN-REDINGTON CO.

Another evidence of the rapid rehabilitation of San Francisco, testifying to the complete and splendid recovery from the misfortune of 1906, is furnished by the removal of Coffin-Redington Co., wholesale druggists, from their temporary quarters, 625-637 Third Street, where they were doing business under full blast one month after the general fire, to their new building, Nos. 35-49 Second Street, near Market, the site of the old one.

They are to be congratulated in securing not only a convenient location in the very center of commercial activity of the West for their many friends and customers to visit them, but on occupying one of the handsomest and most complete buildings for conducting a wholesale drug business in the western country.

Every convenience and comfort which mod-

ern construction has evolved is incorporated in the structure, electric power being used throughout.

Their very attractive building is of pressed brick and steel, 80 x 137½ feet, five stories and basement, giving them a working area of over 66,000 square feet, with every up-to-date appliance for the speedy execution of orders.

The first floor, with the exception of their handsome office is devoted entirely to the display of their immense stock of sundries, comprising not only a complete line of staple articles required in the volume of business they handle, but in the latest novelties to satisfy the most critical trade, selected by experienced buyers. The receiving and shipping departments are situated on this floor.

The second floor, known as the working order floor, contains over 10,000 running feet

of shelf room, 727 bins and drawers to store drugs, patents, chemicals, pharmaceuticals and in fact every article handled by the modern, up-to-date druggist.

Employing a force of competent clerks, they are enabled to fill and dispatch their orders within the quickest possible time.

The third floor is used for storing patent medicines and sundries in original packages, as they come from the manufacturer.

The fourth floor contains an assortment of glassware, including everything in the shape of bottles and sundry glassware, such as graduates, bed pans, etc.

The top or fifth floor is occupied by the laboratory, cigar and liquor departments.

In constructing and equipping these departments, special attention has been given to so arrange them as to facilitate the work to the utmost.

The laboratory, including its several sections, the manufacturing, milling, bottling, packing and finishing, is arranged with modern equipment, anticipating the expediting and handling of a rapidly increasing business in the Coffin-Redington Co.'s specialties.

This department is particularly fortunate in the lighting facilities and ventilation, as besides the large windows which occupy the entire frontage on both Second and Stevenson Streets, there are nine large skylights, covering over 1,000 square feet, made of fire-proof glass, each being provided with a ventilator, carrying off all gases and insuring good ventilation.

The cigar department is located in the rear on this floor, having been provided with air-tight walls and improved zinc-lined lockers for storing stock and keeping it in an even temperature.

The basement is stored with heavy oils, industrial chemicals, acids and the best assorted stock of sponges and chamois west of New York.

The long and uninterrupted success of this old firm is part of the history of San Francisco, beginning in a one-story frame construction in 1849. The name of Redington through the firm, in which the name has been prominent, has been synonymous with integrity and honorable methods, and the prospects for perpetuating the good name through Coffin-Redington Co. was never so well assured as it is today.

Note.—Several personal items are omitted in this issue because of lack of space, due to the publication of the general index.

N. E. Ferguson, formerly proprietor of the Needles Drug Company, returned from Los Angeles. He shipped several burros by express from Los Angeles to Bagdad and is completing his prospecting outfit there. He will go for a prospecting trip of several months in the desert.

J. P. Edwards, formerly with Kirk Geary Co., has entered the services of Eli Lilly & Co., and is calling on the trade in San Francisco.

Schoreder Bros. have just opened up a new establishment.

Chas. R. McNulty, of Eli Lilly & Co., has been for several days in the city looking out for the interests of his house.

H. E. Brooks, of Red Bluff, genial as ever, visited this city recently on a business and pleasure trip.

M. J. Osborn, sales manager for Digesto Malt Extract, recently returned to the home offices after a successful trip, calling on the jobbing drug trade of Montana, Utah and Colorado.

F. H. Hainert is calling on the retail drug trade of San Francisco in the interests of Digesto Malt Extract.

The Theo Hamm Brewing Company, manufacturers of Digesto Malt Extract, will commence their campaign on Digesto in the Spokane, Butte, Portland, San Francisco and Los Angeles papers during the month of April. They will use large 30-inch ads, and the campaign will, no doubt, result in making Digesto the best selling malt product on the Coast.

W. H. Worthington has sold his place of business on 24th and Potrero Avenue, to J. E. Frisbee.

A tremendous explosion, which, strange to say, no one in the neighborhood heard, completely wrecked the safe and office of Dietrich H. Wulzen, a druggist of 470 Castro Street, this city, but the effect of the explosive was so complete that the burglars who had placed the nitro-glycerine were frightened away and did not return for any of the loot. In the morning when Wulzen went to his place of business he found the safe entirely demolished, all the fixtures of the office smashed and hundreds of dollars in gold and notes lying about the floor.

For Sale—A fine opening in one of the bay cities for a druggist with \$2,250.00 to purchase stock and fixtures in a good locality, with excellent prospects. Address, "Drugs," care of **Pacific Pharmacist**, 723-8 Pacific Building, San Francisco, Cal.

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These prices are submitted as ruling in the San Francisco market at time of publication, and are subject to fluctuation. Quotations are based on ordinary quantities, such as usually purchased by the average dealer. Containers are included unless otherwise indicated. See foot-note.

THE MARKET

Changes during the past month are not of startling character. Advance and decline list about equal in staples.

Morphine and Opium declined.

Cocaine has a decline and advance netting 10c per oz. lower for the month.

Quinine firm at last quotation; advance not looked for except with increased consumption.

Citric Acid low for the season of the year, and this owing to weak foreign market.

Golden Seal Root again advanced.

Quince Seed still soaring.

PRICE CHANGES

Declined	Advanced
Acid citric	Bark soap
Acid oxalic	Cloves
Balsam Peru	Clove oil
Cocaine	Flowers chamomile
Lanum	Potash nitrate
Morphine	Roots Golden Seal
Opium	Seed quince

ACETANILID, N. Y. Q., 1-lb. cart. incl....lb	37
Powdr., N. Y. Q., 1-lb cart. incl.....lb	37
ACETONE. Technical lb	41
ACID. Acetic No. 8, carboys.....lb	07
1-lb bottles, M. C. W.....	21
5-lb bottles, " lb	15
Glacial, M. C. W. lb	44
Acetic, U. S. P. (Sp. gr. 1.028).....lb	21
Arsenic, Hydrated Pure.....lb	14
Arsenous, Lumps, Pure lb	24

Arsenous, Powd., Pure, M. C. W.....lb	24
Benzoic, from Toluol, M.C.W., 1-lb cart. incl lb	57
Benzoic, from Toluol, M. C. W.....oz	13
Benzoic, True from Benzoin.....lb	35-1 50
Benzpic, from Toluene, 1-oz. cartons.....oz	10
Benzoic, from Toluene, M. C. W.....lb	55-65
Boracic lb	16-18
Boracic, powd., M. C. W.....lb	18
Boracic, im. powd., M.C.W., 1-lb cart. incl.lb	27
Boracic, Squibb's, 1-lb bottle.....lb	45
Boric, H. P. lb	27
Boric, powd., pure lb	20
Boric, Impalp., powd. lb	27
Butyric, 100% oz	29
Butyric, H. P. lb	2 14
Cacodylic, 1/8 oz	4 00
Camphoric oz	40
Carbolic, Calvert's No. 1.....lb	2 00
Carbolic, Calvert's No. 2.....lb	1 50
Carbolic, 1-lb tin, M.C.W., gilt label....lb	28
Carbolic, M.C.W., 5-lb can, gilt label....lb	25
Carbolic, M.C.W., 10-lb can, gilt label...lb	24
Carbolic, M.C.W., 25-lb can, gilt label....lb	22
Carbolic, Loose, crys. lb	70
Carbolic, Solution, 1-lb. bot.....doz	2 50
Carbolic, Crude gal	40-50
Chromic, 1-oz vials oz	15
Chrysophanic, true, M. C. W., 1-oz vials..oz	39
Cinnamic oz	34
Citric, crys., P. W. R. lb	46-51
Gallic, 1-oz cartons oz	11
Gallic lb	70
Hydrobromic, conc., 1-oz vials, M.C.W...oz	15
Hydrobromic, U. S. P., 10%, M.C.W.....lb	34
Hydrocyanic, 1-oz vials, U.S.P., M.C.W...oz	10
Hydriodic (Sp. gr. 1.50).....oz	42
Hydriodic (Sp. gr. 1.70).....oz	52
Hydrocyanic, U. S. P., Mallinckrodt's...lb	39
Hydrocyanic, U. S. P., Scheele's.....oz	35
Hydrofluoric, 1s, g. p. bots. incl., M.C.W..lb	1 30
Hydrofluoric, 1/2s, g. p. bots. incl. " ..lb	1 80
Hydrofluoric, 1/4s, g. p. bots. incl. " ..lb	2 25
Hydrofluoric, 1-oz g. p. bots. incl. " ..lb	37
Hypophosphorous, 50%, 1-lb G. S. B. " ..lb	1 24
Hypophosphorous, 50%, 1-oz G. S. B. " ..oz	19
Lactic, conc., 1-oz vials, M. C. W.....oz	12
Lactic, conc., 1s lb	79
Lactic, dilute, 1-oz vials, M. C. W.....oz	8
Muriatic, carboys lb	3
Muriatic, 6-lb bots.....each	75
Muriatic, C. P., 6-lb bots.....lb	22
Muriatic, C. P., 1-lb bots.....lb	38
Nitric, carboys lb	7 1/2
Nitric, 7-lb bots.....ea	1 10
Nitric, C. P., 7-lb bots.....lb	22
Nitric, 1-lb bots. lb	40
Nitro-Muriatic lb	40

*Articles quoted in this Journal as M. C. W. are the products of the Mallinckrodt Chemical Works.

Nitrous, fuming	lb	55	Hydrated, pure, M. C. W.....	lb	79
Oxalic.	lb	14-16	Metallic, M. C. W.....	oz	17
Oxalic, chem. pure, M. C. W.....	lb	30	Sulphate, pure, M. C. W.....	lb	25-29
Phosphoric, glacial	lb	64	ALUMNOL	oz	60
Phosphoric, syrupy (85%)	lb	55	AMIDOL. 1-oz. can	oz	65
Phosphoric, diluted, M. C. W.....	lb	25	AMMONIA. Spirits of	lb	75
Phosphoric, M. C. W., U. S. P., 50%..	lb	40	Spirits of, aromatic	lb	75
Phosphoric, glacial, 1-oz vials.....	oz	11	Aqua, 26 deg., 1-lb. bot.....	lb	20
Phosphoric, glacial, 1s, M. C. W.....	lb	64	Aqua, 26 deg., 4-lb bot.....	lb	16
Picric	lb	60-70	Aqua, 26 deg., 5 gal. can.....	lb	11
Pyrogallic, Resublimated, M. C. W.....	oz	27	Aqua, 26 deg., carboy.....	lb	9½
Pyrogallic, 1-lb cans, W. C. W.....	lb	2 35	Aqua, Washing, 5-gal. can.....	gal	50
Pyrogallic, ½-lb cans, M. C. W.....	lb	2 45	AMMONIUM. Acetate, cryst., M. C. W...oz		14
Pyrogallic, ¼-lb cans, M. C. W.....	lb	2 55	Arsenate, 1-oz vials, M. C. W.....oz		22
Pyroligneous	gal	40	Benzoate, 1-oz vials, M. C. W.....oz		14
Salicylic, 1-lb cartons	lb	46	Benzoate, M. C. W.	lb	1 14
Salicylic, from Oil Wintergreen.....	oz	44	Bichromate, 1-oz vials, M. C. W.....oz		14
Salicylic, Amorph.	lb	46	Bromide, 1-oz vials, M. C. W.....oz		10
Succinic, oz bottles	oz	74	Bromide, M. C. W.....	lb	34
Sulphuric, Aromatic	lb	75	Carbonate.	lb	15-18
Sulphuric, carboys	lb	2	Carbonate, powdered	lb	20
Sulphuric, 9-lb bottles	each	1 00	Chloride, see "Muriate."		
Sulphuric, C. P., 9-lb. bottles.....	lb	22	Citrate, 1-oz. vials, M. C. W.....oz		15
Sulphuric, C. P., 1-lb bottles.....	lb	38	Hypophosphite, 1-oz vials, M. C. W.....oz		21
Sulphurous, U. S. P., solution.....	lb	25	Hypophosphite, M. C. W.	lb	1 70
Tannic, M. C. W., Regular	lb	85-90	Iodide, 1-oz. vials, M. C. W.....oz		38
Tannic, U. S. P.	lb	1 15	Muriate, lump.	lb	14-16
Tartaric, crystallized	lb	38-44	Muriate, gran.	lb	10-12
Tartaric, powdered	lb	38-44	Muriate, gran., pure, 1-lb cartons.....	lb	20
Tri-chlor-acetic	oz	32	Muriate, powdered, pure.....	lb	19
Valerianic	oz	20	Muriate, Po	lb	17
ACONITINE. Amorphous	dr	1 40	Muriate, Po., Squibb's	lb	35
Cryst.	dr	1 40	Nitrate	lb	44
ADAPES LANAE. B. P.	lb	35	Oxalate	lb	52
AGARIC. White.	lb	45	Phosphate	lb	84
ALBOLINE.	lb	50	Salicylate	lb	1 10
5-lbs	lb	45	Salicylate	oz	13
Liquid	lb	50	Succinate	oz	1 00
Liquid, 5-lbs	lb	45	Sulphate, com'l	lb	12
AGURIN	oz	1 70	Sulphate, C. P.	oz	29
ALBUMEN. Egg.	lb	1 45	Sulpho Cyanate, pure	oz	10
ALCOHOL. Absolute.	qt	1 00	Valerianate, cryst., 1-oz vials.....oz		24
94%, 10-gal, case	gal	2 93	Valerianate, cryst.	lb	1 75
94%, 5-gal. case	gal	2 98	AMMONOL	oz	1 05
Denatured, 5-gal. can.....	gal	70	AMYL. Acetate	lb	79
Wood, 5-gal. case	gal	70	Butyrate, M. C. W.	oz	30
Wood, Columbian Spirits, 5 gal. in case.gal		1 02	Nitrite	oz	29
Wood, Columbian Spirits, barrels.....	gal	85	Valerianate, M. C. W.	lb	2 59
Wood, Columbian Spirits, ½ barrels....	gal	95	ANNATTO. Roll	lb	60
Cologne Spirits, 5 cents advance over price of			ANODYNE. Hoffman's, 1-lb bottle.....	lb	75
Alcohol.	oz	25	ANTHRASOL	oz	60
ALDEHYDE. Conct.	lb	17	ANTIFEBRIN	oz	17
ALLSPICE.	lb	20	ANTI-KAMNIA and its combinations.....oz		1 00
Powdered	lb	45	10-oz lots for \$9.25; 25-oz for \$22.80		
ALMOND MEAL.	lb	45	Tablets, Vest Pocket	doz	1 75
ALMONDS. Bitter, shelled.	lb	45	Tablets, Vest Pocket, 1 gross, 5% off.		
Sweet, shelled.	lb	16	ANTIMONY. Black, powdered, pure.....	lb	15
ALOIN. 1-oz vials	oz	34	Black, powdered, commercial	lb	10
ALUM. Ammonio-Ferric, M. C. W.	lb	21	Chloride, cryst., 1-oz vials.....oz		22
Chrome	lb	15	Chloride, sol. (Butter of)	lb	39
Burnt	lb	7-9	Oxysulphuret (Kermes Mineral)	lb	1 00
Ground	lb	5-8	Potassium Tartrate, M. C. W.....	lb	45
Lump.	lb	7-9	Sulphuret, precipitated	lb	92
Powdered.	lb	20	ANTINOSINE	oz	2 10
ALUMINUM. Aceto-Tartrate, M. C. W...oz		29	ANTIPYRIN. Knorr's	oz	35
Bromide, M. C. W.....	oz	79	New	oz	25
Chloride, M. C. W.....	lb	14	APIOL. Fluid Green	oz	37
Chloride, M. C. W.....	oz				

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APOLSYIN. S. & G. oz	65	Canella, powdered lb	35
APOMORPHINE. Hydrochlor. A m o r.,		Cascara, Sagrada. lb	18
1/8-oz vial oz	3 50	Cascara, Sagrada, powdered. lb	20
Mur. cryst. oz	8 50	Cascarilla lb	25
Muriate, Amorphous, 1/8-oz vials, M.C.W.oz	4 00	Cascarilla, powdered lb	30
ARISTOL oz	1 80	Cassia. lb	22
ARGOLS. Red lb	15	Cassia, powdered lb	25
Red, powdered lb	20	Cinchona, red. lb	45-50
ARGYROL oz	1 50	Cinchona, red powdered. lb	45-50
ARROWROOT. St. Vincent.....lb	18-20	Cinnamon, Ceylon. lb	40 50
Taylor's Bermuda, 1/4s and 1/2s.....lb	35	Cinnamon, Ceylon, powdered. lb	40-50
Taylor's Bermuda, bulk lb	35	Cotton Root, powdered. lb	35
ARSENIC. Bromide, 1-oz vials, M. C. W.oz	27	Cotton Root, pressed, 1-lb.....lb	35
Chloride, sol., M. C. W.....lb	30	Cramp, powdered lb	25
Iodide, 1-oz vials, M. C. W.....oz	44	Cramp, pressed, 1-lb lb	25
Metallic lb	45	Cundurango lb	45
Red, powdered lb	15	Cundurango, powdered lb	50
Solution (Donovan's) lb	40	Dogwood, pressed, 1-lb.....lb	20
Solution (Fowler's) lb	30	Dogwood, powdered lb	25
Sulphured, red powdered lb	33	Elder, pressed, 1-lb.....lb	35
Sulphured, yellow powdered lb	33	Elm, select, slabs. lb	30
White, lump lb	30	Elm, ground, bulk lb	30
White, powdered, commercial lb	12-15	Elm, powdered lb	30
Yellow (orpiment) lb	35	Elm, powdered, 1/4s.....lb	30
ASBESTOS. Fibrous, gro.....lb	20	Elm, powdered, 1/8s.....lb	35
ASPARAGIN. 1/8-oz vials oz	1 50	Elm, powdered, ozs.....lb	40
ASPIRIN oz	43	Hemlock, pressed, 1-lb. lb	25
ATROPIA. Pure, 1/8-oz vials oz	7 35	Hemlock, powdered. lb	30
Sulphate, 1/8-oz vials oz	6 25	Jamaica Dogwood, pressed, 1-lb.....lb	35
BALSAM. Copaiba, 8-lb can lb	75	Jamaica Dogwood, powdered, 1-lb.....lb	35
Copaiba, 5-lb bottle.....lb	80	Mezereon, pressed, 1-lb.....lb	28
Copaiba, 1-lb bottle.....lb	95	Oak, red, pressed, 1-lb.....lb	22
Copaiba, solidified lb	1 25	Oak, white, powdered. lb	22
Fir, Canada lb	75-80	Oak, white, pressed, 1-lb.....lb	22
Fir, Oregon lb	40-45	Poplar, white, powdered, 1-lb.....lb	25
Gurgun lb	40	Poplar, white, pressed, 1-lb lb	25
Peru lb	2 40	Poplar, yellow, pressed, 1-lb.....lb	25
Sulphur lb	60	Prickly Ash, powdered lb	40
Tolu lb	60	Prickly Ash, pressed, 1-lb.....lb	33
BARIUM. Acetate, 1-oz vials, M. C. W...oz	16	Quebracho lb	35
Carbonate, M. C. W.....lb	37	Sassafras. lb	28
Carbonate, precip. lb	30	Sassafras, powdered lb	25
Chloride, chemically pure, M. C. W.....lb	33	Simaruba lb	50
Nitrate, M. C. W. lb	23	Soap Tree lb	11-13
Sulphide, commercial, M. C. W.....lb	43	Soap Tree, ground lb	16
Sulphide, pure, M. C. W.....lb	53	Soap Tree, powdered lb	17
Sulphate, M. C. W. lb	13	Sumac, pressed, 1-lb.....lb	25
BARK. Alder, black, pressed, 1-lb.....lb	25	Tamarac, pressed, 1-lb lb	25
Alder, red or tag, pressed, 1-lb.....lb	24	Wahoo Root, pressed, 1-lb.....lb	33
Angostura lb	30	Wild Cherry. lb	16
Ash, black, pressed, 1-lb.....lb	20	Wild Cherry, ground. lb	18
Ash, mountain, pressed, 1-lb.....lb	24	Wild Cherry, powdered lb	20
Ash, white, pressed, 1-lb.....lb	25	BAY RUM. Domestic gal	2 25
Barberry, pressed, 1-lb.....lb	30	Imported gal	3 00
Barberry, powdered lb	35	BEANS. Calabar. lb	40
Bayberry, pressed, 1-lb. lb	25	Tonka, Angostura lb	1 35
Bayberry, powdered. lb	30	Vanilla, short, true Mexican.....lb	8 50
Birch, pressed, 1-lb.....lb	24	Vanilla, long, true Mexican.....lb	9 50
Black Haw, powdered lb	35	Vanilla, Tahiti lb	1 50
Black Haw, pressed, 1-lb.....lb	30	BEBEERINE. Pure, 1-oz vials oz	2 04
Black Willow, pressed, 1-lb.....lb	25	Sulphate, 1-oz vials oz	1 49
Blackberry. lb	20	BENZOLE. Pure lb	35
Buckthorn, pressed, 1-lb lb	25	BENZIN. Gallon lb	30
Butternut, pressed, 1-lb lb	25	5 and 10 gallons gal	25
Calisaya, yellow, commercial. lb	30	Pints doz	1 60
Calisaya, yellow, commercial, powd.....lb	32	BERBERINE. Hydrochloride oz	2 55
Calisaya, East India. lb	42	Sulphate oz	2 29
Calisaya, powdered. lb	45	BERRIES. Buckthorn lb	30
Canella lb	35	Cocculus Indicus lb	17

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Cubeb, stemless	lb	30	CALCIUM. Bromide, 1-oz vials, M. C. W.	oz	12
Cubeb, powdered	lb	30	Bromide, M. C. W.	lb	64
Elder	lb	30	Chloride, fused, M. C. W.	lb	64
Juniper, Italian	lb	10	Chloride, granular, M. C. W.	lb	30
Poke	lb	25	Glycerylphosphate	oz	22
Prickly Ash.	lb	40	Hypophosphite, 1-oz vials.	oz	14
Sumac	lb	25	Hypophosphite.	lb	89
Sumac, powdered	lb	30	Hypophosphite and Sodium, 1-oz vials.	oz	16
BETOL	lb	60	Hypophosphite and Sodium, M. C. W.	lb	1 09
BISMUTH. Acetate, M. C. W.	oz	35	Iodide, 1-oz vials, M. C. W.	oz	37
Citrate, M. C. W.	lb	2 89	Lactophosphate, soluble	lb	1 35
Citrate, M. C. W.	oz	25	Lactophosphate, soluble	oz	17
Citrate and Ammonia, M. C. W.	oz	26	Phosphate, precipitated, 1-lb cart.	lb	20
Citrate and Ammonia, M. C. W.	lb	2 82	Phosphide, 1-oz vials	oz	50
Lactate	oz	39	Sulphate, pure	lb	49
Metallic	lb	2 50	Sulphide, 1-oz vials	oz	10
Nitrate, M. C. W.	oz	24	Sulphide	lb	37
Oxide, Hydrated, M. C. W.	lb	3 33	Sulphite	lb	84
Oxide Hydrated, M. C. W.	oz	32	Sulpho, carbolate, M. C. W.	oz	11
Oxychloride, M. C. W.	lb	2 37	CALOMEL. N. Y. Q.	lb	1 05
Salicylate, 40%	oz	20	Calomel, P. W. R., 1-lb boxes.	lb	1 05
Salicylate, 64% Basic	oz	23	English, Howard's	lb	1 35
Salicylate, 64% M. C. W.	lb	2 57	CAMPHOR. Monobromated, M. C. W.	oz	24
Subbenzoate	oz	29	Tar flake.	lb	5-7
Subcarbonate	lb	2 42	Tar balls.	lb	5-7
Subgallate	oz	23	CANDY. Coltsfoot Rock	lb	30
Subiodide, M. C. W.	lb	4 00	Horehound.	lb	12
Subiodide, 1-oz vials, M. C. W.	oz	34	Rock, on strings	lb	15
Subnitrate, M. C. W.	lb	2 12	Rock, brown	lb	16
Subnitrate, N. Y. Q.	lb	2 12	Rock, red	lb	15
Subnitrate, P. W. R.	lb	2 12	Rock, white	lb	14
Tannate, 1-oz vials, M. C. W.	oz	24	CANTHARIDES. Russian, powdered.	lb	1 25
Valerianate, 1/8s	oz	57	CAPSICUM. African, pods	lb	25
BLUE MASS	lb	65	African, powdered	lb	30
Powdered	lb	75	Bombay	lb	20
BLUE VITRIOL. Barrels, 6 3/4	lb	10-12	CARAMEL.	gal, \$1.25.	lb 25
Powdered	lb	15	CARBON. Bisulphide	lb	30
BOLE. Armenian	lb	18	Bisulphide, 50-lb cans	ea	5 18
BONE ASH	lb	6-8	Bisulphide, Wheeler's 50-lb can.	ea	5 18
BORAX. C. P., Squibb's	lb	33	Bisulphide, 1-gal cans	gal	1 43
Pacific Coast Borax Co., 1-lb.	doz	1 14	Bisulphide, quart bottles	doz	4 50
Pacific Coast Borax Co., 3/4-lb.	doz	90	CARMINE. No. 40.	oz	40
Pacific Coast Borax Co., 1/4-lb.	doz	48	No. 40.	lb	4 50
Powdered	lb	8-10	CASSIA FISTULA	lb	20
Pure Granular	lb	25	CASTOR FIBER.	oz	1 50
Refined	lb	8-10	Castor Fiber, powdered	oz	1 75
BOROFORMOL. Pints	doz	7 50	CERATE. Cantharides	lb	1 00
BOROLYCEIDE Solution.	lb	60	Goulard's, U. S. P.	lb	70
BROMOFORM	oz	18	Resin, U. S. P.	lb	50
BROMINE	lb	83	Savin	lb	60
Chloride, solution	oz	60	Simple	lb	50
BRUCINE. 1/8-oz vials, M. C. W.	oz	1 75	Spermacti	lb	70
BRUCINE	oz	1 75	Turner's	lb	60
Phosphate	oz	1 75	Zinc, Carbonate, true	lb	60
Sulphate, 1/8-oz vials	oz	1 75	Zinc, Oxide	lb	60
BUDS. Balm of Gilead	lb	60	CERIUM. Oxalate	oz	09
Cassia	lb	50	Oxalate, 1-lb. cartons.	lb	45
BUTTER CACAO. Ghirardelli	lb	65	CHALK. Crayons, white	lb	15
German	lb	72	French, cut	lb	18-20
CADMIUM. Bromide, M. C. W.	oz	18	French, powdered	lb	5-8
Iodide, M. C. W., 1-oz vials.	oz	31	Precipitated, English	lb	10-12
Sulphate, M. C. W., 1-oz vials.	oz	25	Prepared in drops, bulk	lb	7-8
CAFFEIN. Bromide, 1-oz vials.	oz	37	Prepared in drops, 5-lb boxes.	lb	8-10
Citrated, M. C. W.	oz	28	Prepared pink, 8-lb boxes.	lb	10
Citrated, N. Y. Q.	oz	28	White, in lumps	lb	3-4
Pure, N. Y. Q.	oz	35	CHARCOAL. Animal	lb	8-10
Sulphate, 1/8-oz vials, M. C. W.	oz	60	Willow, powdered	lb	10-12
Salicylate, true salt, 1/8s, M. C. W.	oz	60	CHINA CLAY	lb	10
CALAMINE	lb	18	CHINESE SHAVINGS	lb	60

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CHINOIDINE. 1-oz rolls	oz	12	Nitrate	lb	54
CHLORAL HYDRATE, CROTON, 1-oz vial			Sulphate, C. P., granulated, 1-lb. boxes...	lb	23
incl.	oz	35	Sulphate, Caustic Pencils	doz	1 75
Crystals, M. C. W., 1s.....	lb	1 35	Sulphate, purified, 1-lb cartons.....	lb	21
Crystals, M. C. W., ½s.....	lb	1 45	COPPERAS. bbls 1¼.....	lb	3-4
Crystals, M. C. W., ¼-lb cartons.....	lb	1 50	CORROSIVE SUBLIMATE. N. Y. Q....	lb	95
Crystals, M. C. W., ozs.....	lb	2 10	Powdered, N. Y. Q.....	lb	95
Crystals, 1-lb g. s. b. incl., Schering.....	lb	1 45	1-lb boxes, P. W. R.....	lb	95
Crystals, ½-lb g. s. b. incl., Schering.....	lb	1 55	COTOIN. Para, ⅛-oz.....	oz	14 00
Crystals, ¼-lb g. s. b. incl., Schering.....	lb	1 65	COTTON. Negative, Anthony's Liq.....	oz	1 00
Crystals, 1-oz g. s. vls. incl., Schering.....	oz	17	COWHAGE. 1-oz cans	oz	55
CHLORALAMID	25 gramme	80	CREAM TARTAR, pure, powdered.....	lb	30-35
CHLOROFORM. 1-lb. tin, N. Y. Q.....	lb	52	Pure, powdered, 25-lb box.....	lb	29
In 7-lb. bottle, N. Y. Q.....	lb	42	CREOLIN. ½-lb.....	doz	4 00
Squibb's, 1-500 gramme.....	ea.	1 00	1-lb	doz	8 00
CINCHONINE Alk'd pure 1-oz vials M.C.W.oz		25	CREOSOTE. Beechwood	lb	94
Bisulphate, M. C. W.	oz	18	½-lb	lb	1 10
Muriate, M. C. W.....	oz	17	¼-lb	lb	1 20
Sulphate, 1-oz vials, M. C. W.....	oz	17	CREOSOTE CARBONATE	oz	65
CINCHONIDINE Alk. pure 1-oz v'ls M.C.W.oz		50	In ¼-lb	lb	9 25
Bisulphate, 1-oz vials, M. C. W.....	oz	30	In ½-lb	lb	9 15
Muriate, M. C. W.	oz	32	In 1-lb	lb	9 10
Salicylate, 1-oz vials, M. C. W.....	oz	34	CROCUS MARTIS	lb	16
Sulphate, 1-oz vials, M. C. W.....	oz	30	CUDBEAR	lb	30
Sulphate, 5-oz cans, M. C. W.....	oz	25	CUMARIN	oz	45
Sulphate, 1-oz vials, P. W. R.....	oz	28	CUMENE (Cumol).	lb	1 10
CLOVES. Zanzibar	lb	30	CURCUMA. Powdered	lb	16
Zanzibar, powdered	lb	35	CUTTLEFISH	lb	35
COBALT	lb	25	Jeweler's	lb	85
Cobalt, powdered	lb	30	Powdered	lb	30
COCAINE. Alk., M. C. W., 1-oz v'ls, incl.oz		3 50	DATURINE. Alk., cryst., 5-gr.....	ea	75
Hydrochloride, M. C. W.	oz	2 35	DEXTRIN.	lb	12-15
Hydrochloride Cryst., 1-oz v'ls, N.Y.Q.oz		2 35	DIASTASE. of Malt	oz	1 14
Hydrochloride Cryst., ½-oz v'ls, N.Y.Q.oz		2 50	DIGALEN. ½-oz bottles	ea	1 00
Hydrochloride Cryst., ¼-oz v'ls, N.Y.Q.oz		2 60	DIGITALIN. ⅛-oz vials	oz	5 75
Hydrochloride Cryst., ⅛-oz v'ls, N.Y.Q.oz		2 75	DIONIN. ⅛s.	oz	6 25
Hydrochloride, 1-oz vials, P. W. R.....	oz	2 35	15-gr vials	ea	35
COCHINEAL. Honduras	lb	60	DOVER'S POWDER, U. S. P.....	lb	1 70
Honduras, powdered.	lb	65	DRAGON'S BLOOD, Mass.	lb	55
CODEINE. N. Y. Q., pure.....	oz	4 95	Powdered	lb	85
Muriate, N. Y. Q..... 1 oz, \$4 70.....	⅛s	4 90	Reed's.	lb	85
Phosphate, N. Y. Q., ⅛-oz vials.....	oz	4 65	DIURETIN.	oz	1 80
Pure, M. C. W.....	oz	4 95	DUBOISINE. Sulphate, 10-gr vial.....		1 10
Sulphate, M. C. W.....	oz	4 70	EARTH, Fuller's, powdered.	lb	8-10
Sulphate, 1-oz vials, P. W. R.....	oz	4 70	EIKONOGEN, lb, \$3.95; ½s, \$4.20.....	oz	37
COLLODION	lb	70	¼s.	lb	4 80
1-oz vials	doz	1 25	ELATERIN. 15-gr vial		1 25
Cantharidal	lb	1 85	ELATERIUM, ⅛-oz vials.....	oz	2 25
Cantharidal, 1-oz vials	doz	1 75	EMERY. Flour.	lb	10-12
Flexible	lb	70	Grain.	lb	10-12
Flexible, 1-oz vials	doz	1 00	EMETIN (Resinoid)	oz	7 53
COLCHICINE. Cryst., 15-grain.....	gr	14	(Alkaloid), pure, 15-gr vial.....		1 25
C. P., Amorph., 15-grain vials.....	gr	30	ERGOT. Spanish.	lb	65
COLOCYNTH. Apples, Trieste.....	lb	60-65	Spanish, powd.....	lb	65
Apples, powdered	lb	75	ERGOTIN. Bonjean	oz	36
COMPOSITION POWDER, 2-oz papers..	lb	35	ERGOTOLE. S. & D.....	doz	4 50
CONFECTION. Aromatic	lb	1 00	ESERINE (Physostigmine), 5-gr Alkaloid..	gr	13
Opium	lb	1 50	Sulphate, 5-gr vials	ea	50
Rose, U. S. P.	lb	65	Sulphate, 10-gr vials	ea	1 00
Senna, U. S. P.	lb	70	Sulphate, 15-gr vials	ea	1 50
Theriac	lb	1 25	ETHER. Acetic, M. C. W., 1-lb. bot.....	lb	61
COPPER. Acetate, cryst., C.P., M.C.W....	lb	74	Benzoic, 1-oz bot.	oz	34
Acetate, com'l, lump	lb	40	Butyric, 1-lb bot.....	lb	1 25
Acetate, Po. Verdigris	lb	45	Chloric, U. S. P., M. C. W., 1-lb bot....	lb	64
Ammoniated	lb	59	Chloric, concent., M. C. W., 1-lb bot....	lb	74
Arsenite, 1-oz vials, M. C. W.	oz	19	Formic, 1-lb bot.	lb	1 59
Arsenite, 1-oz vials	oz	19	Hydrobromic, 1-oz bot.	oz	20
Bromide	oz	32	Nitrous, conc., M. C. W., ¼-lb bot.....	lb	1 10
Carbonate	lb	38	Nitrous, conc., M. C. W., ½-lb bot.....	lb	1 00

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Nitrous, conc., M. C. W., 1-lb bot.....lb	90	GADUOL,.....oz	37
Nitrous Spirit, 4-lb bot. lb	58	GAMBIER. lb	15
Sulphuric, U.S.P., Mallinckrodt's, 1-lb can.lb	31	GARANTOSE. 550 times sweeter than sugar.	
Sulphuric, U.S.P., Mallinckrodt's, 3-lb can.lb	27	1-lb cans lb	2 25
Sulphuric, U.S.P., ¼-lb cans, P.W.R.....lb	58	1-oz cans oz	20
Sulphuric, U.S.P., 1-lb cans, P.W.R.....lb	41	GELATIN. Cooper's, 12-lb case.....lb	65
Sulphuric, washed, 1-lb bot.....lb	42	Coxe's. doz	1 50
Sulphuric, Squibb's, in 1-500 gm cans.....ea	88	French Pink. lb	75
Sulphuric, Squibb's, in 1-250 gm cans.....ea	49	French Gold Label. lb	55
Sulphuric, Squibb's, in 1-100 gm cans.....ea	22	French Silver Label.....lb	40
Valerianic oz	30	GLASS. Powdered. lb	15
ETHYL. Bromide oz	20	Soluble. lb	25
Chloride, 10 gramme tubes Bengue.....doz	5 00	GLUCOSE. 1-lb bot.....lb	20
Chloride, 30, gramme tubes Bengue.....doz	10 00	GLUE. Common. lb	15
Chlodire, 10 gramme ea	40	White, No. 1. lb	25
Iodide (see Hydriodic Ether) oz	54	GLUTOL oz	65
EUCALYPTOL oz	16	GLYCERINE. Price's. lb	70
EUCAINE. A or B, ½s.....oz	3 60	Pure, in 10-lb cans lb	22
EUDOXINE. oz	2 10	Pure, in 50-lb cans lb	18
Tablets, 3-gr. oz	2 60	GLYCEROPHOSPHATES. Iron oz	32
Tablets, 5-gr. oz	2 50	Lime oz	22
Tablets, 1-3 gr, ¼-oz bots.....oz	3 00	Potash oz	29
EUKATROL, powd.....oz	1 00	Soda oz	28
Tablets oz	1 00	GLYCYRRHIZIN. Ammoniated oz	26
EUROPHEN. oz	1 80	GOLD and Sod. Chlo., 15-gr v'ls, M.C.W..doz	2 70
EXALGINE. oz	1 50	And Sodium Chlor, 15-gr vials, P.W.R..doz	3 30
EXTRACT. Licorice, Corigliano. lb	45	Chloride, 15-gr vials, M. C. W.....doz	5 10
Licorice, Mellor & Rittenhouse.....lb	27-30	Chloride, 15-gr vials, P. W. R.....doz	5 10
Licorice, M. & R., 25 and 50-lb box....lb	26	Mono-bromide, 15-gr vials.....ea	1 25
Licorice, soft, perf., clearly soluble.....lb	75	Tri-bromide, 15-gr vials ea	1 00
Licorice, Y. & S.....lb	27-30	Tri-cyanide, 15-gr vials ea	2 00
Licorice, powd. lb	35	GOOSE GREASE. lb	60
Logwood, bulk lb	15	GRAINS. Paradise. lb	45
Logwood, ¼s. lb	20	Powdered. lb	45
Logwood, ½s. lb	18	GUAIACOL. Carb. oz	1 50
Logwood, 1s. lb	16	Merck's. oz	18
Male Fern, U. S. P.....lb	2 25	GUARANA. Powd lb	2 40
Malt, dry lb	1 25	GUM. Aloes, Barbadoes.....lb	50
Witch Hazel gal	80-90	Aloes, Barbadoes, powd.....lb	55
Witch Hazel, 5-gal kegs, Dickenson's..gal	1 05	Aloes, Cape. lb	20
Witch Hazel, 10-gal kegs, Dickenson's..gal	1 00	Aloes, Cape, powd.....lb	20-25
FAREOL. oz	50	Aloes, Socotrine lb	40
FENETOLE lb	2 00	Aloes, Socotrine, powd.....lb	40
FERRATIN. Powder or tablets.....oz	85	Ammoniac tears. lb	40
FLAKE WHITE. English. lb	15	Arabic, Turkey, first pick.....lb	55
FLOUR. Gluten. lb	15	Arabic, Turkey, second pick.....lb	40
Rice. lb	12	Arabic, Turkey, sifted sorts. lb	20
FLOWERS. Althea. lb	40	Arabic, first pick, granulated.....lb	50
Arnica lb	20-22	Arabic, first pick, powd.....lb	50-60
Arnica, powd. lb	25	Asafoetida, Calcutta. lb	40
Calendula, new lb	90	Asafoetida, powd. lb	45
Chamomile, German, new.....lb	35	Asphaltum. lb	15
Chamomile, Roman lb	40	Benzoin, marble, select. lb	50
Elder lb	30	Benzoin, powd. lb	55
Elder, pressed. oz	25	Camphor, bulk lb	85
Kooso. lb	75	Camphor, 1-oz blocks lb	88
Kooso, powd. lb	80	Camphor, 24 to lb lb	88
Lavender. lb	35	Camphor, powd lb	1 00
Mullein.....lb	1 00	Catechu, refined. lb	18
Orange.....lb	1 10	Catechu, powd. lb	30
Poppy, red. lb	75	Copal lb	35
Rose, red. lb	1 20	Damar. lb	38
Rosemary. lb	35	Galbanum. lb	1 00
FLOUR SPAR. Powdered.....lb	25	Gamboge lb	1 10
FORMALDEHYDE lb	32	Gamboge, powd. lb	1 15
5-lb bot. lb	25	Guaiac. lb	35
FORMALIN. S. & G. lb	40	Guaiac, powd. lb	40
FORMIN oz	18	Kino, true. lb	75
		Kino, true, powd.....lb	80

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Mastic tears	lb	80	HYOSCYAMINE. Alkaloid, crys. 15-gr vls.	ea	4 75
Myrrh, Turkey.	lb	35	Amorphous	gr	25
Myrrh, Turkey, powd.....	lb	40	Hydrobromate, Amorph., 15-gr.....	ea	3 00
Olibanum tears	lb	30	Sulphate, crys., 15-gr	ea	3 03
Opium	lb	5 75	Sulphate, Amorph., 5-gr vials.....	ea	1 25
Opium, powd	lb	6 25	IATROL.	oz	95
Sandarac.	lb	45	ICHTHARGAN	oz	3 00
Scammony, Aleppo.	oz	40	ICHTHORFORM	oz	1 00
Scammony, Virgin, true.....	oz	75	ICHTHYOL, 1-oz vials	oz	32
Shellac, bleached.	lb	75	1/4s	oz	4 25
Shellac, orange.	lb	70	1/2s	oz	4 10
Shellac, ground.	lb	75	1s	oz	4 00
Spruce.....	lb	1 50	INDIGO, Manila, extra.....	lb	75
Tamarac, true.	lb	1 25	IODIPIN (10% Iodized Sesame oil).....	oz	28
Thus.	lb	12	IODINE, Bromide, 1-oz vials, M.C.W.....	oz	47
Tragacanth, ribbon.	lb	90	Chloride, 1-oz vials, M.C.W.....	oz	52
Tragacanth, powd.	lb	80	Resublimed, 1-oz vials, M. C. W.....	oz	34
GUTTA PERCHA. Crude, shavings.....	lb	1 75	Resublimed, M. C. W.	lb	3 13
Crude, sheets.	lb	1 75	Resublimed, N. Y. Q.	lb	3 13
HEDONAL.	oz	1 60	Resublimed, 1-lb bot., P. W. R.	lb	3 13
HEMICRANIN	oz	90	Burnham's, soluble.	oz	1 00
HEMOGALLOL	oz	80	IODIFORM, bulk, M. C. W.	lb	3 68
Tablets	100	80	Iodoform, 1-lb bot, N. Y. Q.....	lb	3 68
HEROIN. 1-oz.	oz	6 70	Iodoform, 1-lb bots, P. W. R.....	lb	3 68
1/2-oz vial	oz	6 85	Cryst. or powd	oz	33
1/4-oz vial	oz	7 00	Deodorized.	oz	54
15-gr vial	ea	29	IODOL.	oz	1 25
Hydrochloride, oz vial	oz	6 70	IRON, Acetate, dry, 1-oz vials, M.C.W.....	oz	20
1/2-oz vial	oz	6 85	Acetate, liquor.	lb	44
1/4-oz vial	oz	7 00	Albuminate.	oz	20
15-gr vial	ea	29	Ammoniated, M. C. W.....	lb	44
HEXAMETHYLENAMINE	lb	1 45-1 60	And Ammonium Cit	lb	75
"	oz	16	Arseniate, 1-oz vials.	oz	18
HIERA PICRA.	lb	50	By Hydrogen	lb	60
HOFFMAN'S ANODYNE.	lb	75	Carbonate, precipitated.	lb	18
HOMATROPINE, Alk'l'd, 5-gr vials.....	ea	2 25	Carbonate, proto.	lb	42
HOMATROPINE. Alk'l'd, 5-gr vials.....	ea	2 25	Carbonate, saccharated	lb	40
Hydrobromate, 5-gr vials	ea	1 75	Chloride, 1-oz vials.....	oz	8
Hydrochlorate, 5-gr vials	ea	2 10	Chloride, crystal.	lb	34
HOMOGLOBIN. Powd	oz	1 04	Chloride, sol. for tincture.....	pt	35
HOPS, new, bulk.	lb	37	Citrate, soluble, 1-oz vials.....	oz	13
New, ozs.	lb	50	Citrate, soluble, N. Y. Q.	lb	70
New, 1/4s, 1/2s.	lb	40	Citrate, soluble, M. C. W.	lb	70
HYDROCHINON	oz	18	Citrate and quinine, N. Y. Q.....	lb	2 00
"	lb	1 42	Citrate and Quinine, sol., M. C. W....	lb	2 00
HYDROGEN PEROXIDE, Drevet's U.S.P.,			Citrate and Quinine with Strych., M.C.W.lb	2 55	
1-lb bots.	doz	3 00	Citrate and Quinine with Strych., M.C.W.oz	26	
Drevet's U.S.P., 1/2-lb bots.....	doz	1 90	Citrate and Strychnine, 1-oz vials, M.C.W.oz	13	
Drevet's U.S.P., 1/4-lb bots.....	doz	1 40	Ferrocyanide, 1-oz vials, M. C. W.....	oz	10
Marchand's, 1-lb bots.....	doz	8 00	Ferrocyanide, M. C. W.....	lb	65
Marchand's, 1/2-lb bots.....	doz	5 25	Filings.....	lb	16
Marchand's, 1/4-lb bots.....	doz	3 80	Glycerino Phosphate.	oz	32
Marchand's, 1/8-lb bots.....	doz	2 25	Hypophosphite, 1-oz vials, M. C. W.....	oz	20
M. C. W., 1-lb bots.....	doz	3 00	Iodide, 1-oz vials, M. C. W.....	oz	33
M. C. W., 1/2-lb bots.....	doz	1 80	Lactate, 1-oz vials, M. C. W.....	oz	10
M. C. W., 1/4-lb bots.....	doz	1 20	Lactophosphate, 1-oz vials, M. C. W.....	oz	19
Oakland, 1-lb bots.....	doz	6 50	Nitrate, sol., U. S. P., M. C. W.....	lb	34
Oakland, 1/2-lb bots.....	doz	4 00	Oxide, black.	lb	49
Oakland, 1/4-lb bots.....	doz	2 25	Oxide, brown, com'l	lb	22
Oakland, 5-lb bots.....	ea	1 59	Oxide, brown, pure	lb	74
HYDRO NAPHTHOL.	oz	75	Peptonized	oz	24
HYDRASTINE. Alkaloid	oz	10 04	Phosphate, precipitate.	lb	39
Hydrochloride	oz	20 00	Phosphate, U. S. P., scales, N. Y. Q.....	oz	13
HYDRASTININE. Hydrochloride, 15-gr vls.	ea	3 00	Phosphate, U. S. P., scales, N. Y. Q.....	lb	75
HYDROQUINONE	oz	18	Pyrophosphate, soluble, N. Y. Q.....	lb	75
HYOSCINE. Amorphous, 15-gr vials.....	ea	2 00	Pyrophosphate, U. S. P., 1880, N. Y. Q..oz	13	
Hydrobromate, 5-gr vials	ea	2 00	Pyrophosphate, U. S. P., 1880, N. Y. Q..lb	75	
Hydriodide, 5-gr vials	ea	2 00	Reduced (Quevenne's)	lb	58
Sulphate, 5-gr vials	ea	2 00	Reduced (Quevenne's)	oz	10

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Salicylate, 1-oz vials, M. C. W.....oz	15	Coltsfoot, pressed. oz	25
Subsulphate, M. C. W.....oz	6	Damiana.....lb	30
Subsulphate, M. C. W.....lb	36	Digitalis, pressed. oz	35
Subsulphate, sol., M. C. W.....lb	23	Digitalis. lb	35
Succinate oz	60	Digitalis, powd. lb	35
Sulphate, dried. lb	20	Eucalyptus. lb	20
Sulphate, gran., pure.....lb	18	Grindelia Robusta lb	25
Sulphate, pure, cryst., M. C. W.....lb	20	Grindelia Squarosa lb	40
Sulpho-Carbolate, 1-oz vials, M. C. W....oz	13	Hemlock, pressed. oz	30
Tannate, 1-oz vials, M. C. W.....oz	22	Henna. lb	50
Tartrate and Ammonia, M. C. W.....oz	11	Henna, powd. lb	55
Tartrate and Ammonia, M. C. W.....lb	72	Henbane. lb	30
Tartrate and Potassium, M. C. W.....oz	10	Henbane, powd. lb	30
Tartrate and Potassium, scale, M. C. W...lb	58	Henbane, pressed, oz.....lb	30
Tersulphate, sol., U. S. P.....lb	40	Jaborandi. lb	35
Valerianate. oz	22	Jaborandi, powd. lb	40
IODOTHYRINE. oz	3 40	Laurel. lb	25
ISINGLASS, American lb	1 05	Lovage, pressed, oz.....lb	30
Russian. lb	5 25	Lungwort, pressed, oz.....lb	34
KAMALA. lb	65	Marjoram, sweet lb	36
Powd. lb	75	Rosemary, bulk. lb	20
KAOLIN.....lb	10	Rosemary, pressed, oz. lb	25
KERATIN (Pepsinized), 1/8s oz	3 53	Sage, oz. lb	25
KOUSSO. lb	75	Savin, pressed, oz.....lb	25
Powd.....lb	75	Senna, Alexandria, garbeled lb	35
KRYOFINE. oz	1 00	Senna, Alexandria, powd. lb	30
LACTUCARIUM oz	80	Senna, Tinnevelly, select.....lb	25
LACTOPHEPIN. oz	1 00	Stramonium, powd. lb	30
LANOLIN. lb	80	Stramonium, pressed, oz.....lb	25
Lanae Adeps, 1-lb cans, B. J. D.....lb	35	Thyme, pressed, oz.....lb	25
Lanae, British. lb	35	Uva, Ursi. lb	20
LANUM (Adeps Lanae Hydrosus) lb	40	Witch Hazel, pressed, oz.....lb	25
LARD, Benzoated, 5-lb cans.....lb	26	LEECHES. ea	10
LARGIN oz	1 75	2 dozen lots.....ea	8
LEAD. Acetate, med. crys. or gran.....lb	33	LEPTANDRIN. oz	35
Acetate, white. lb	18	LIME, Chloride, 35-lb cans.....lb	5
Acetate, white, powd.....lb	25	Chloride, in bbls of 350 lbs lb	2 1/2
Acetate, purified, gran., 1-lb cart., M.C.W.lb	33	Chloride, 1b cans doz	85
Bromide. oz	24	Chloride, 1/2-lb cans doz	60
Carbonate.....lb	12	Chloride, 1/4-lb cans.....doz	45
Chloride, 1-oz vials.....oz	11	LITHARGE. lb	12
Chromate, M. C. W.....lb	1 19	LITHIUM, Benzoate, 1-oz vials, M.C.W...oz	15
Iodide, 1-oz vials, M. C. W.....oz	25	Bromide, 1-oz vials, M. C. W.....oz	21
Nitrate, 1-lb boxes, M. C. W.....lb	23	Carbonate, M. C. W.....oz	15
Nitrate, chemically pure, M. C. W.....lb	40	Citrate, 1-oz vials, M. C. W.....oz	16
Oxide, chemically pure, M. C. W.....lb	84	Iodide oz	35
Oxide lb	84	Salicylate, 1-oz vials, M. C. W.....oz	15
Subacetate, sol. lb	35	LITMUS. lb	50
Sulphate, pure, M. C. W.....lb	63	Paper. doz	50
Tannate, 1-oz vials, M. C. W.....oz	24	LODESTONE. lb	75
LEAVES, Aconite, German.....lb	30	LONDON PURPLE. lb	20
Aconite, powd. lb	30	LOSOPHAN. oz	1 80
Aconite, pressed. oz	25	LUPULIN, German. lb	75
Angelica, pressed. oz	25	LYCOPodium. lb	65-75
Bay, bulk. lb	15	LYCETOL. oz	4 25
Belladonna, English, bts.....lb	1 25	LYSOL, 1-gal. jugs.....gal	4 00
Belladonna. lb	30	Pints. doz	8 00
Belladonna, powd. lb	35	MACE.....lb	75
Belladonna, pressed. oz	35	Powd. lb	75
Blessed Thistle, pressed.....oz	34	MADDER, Dutch. lb	15
Borage, pressed. oz	35	MAGNESIUM, Benzoate, M. C. W.....oz	24
Buchu, long. lb	55	Bromide, Mallinckrodt's. oz	25
Buchu, short. lb	40	Calcined, Jennings', 1-lb cans.....lb	85
Buchu, powd. lb	40	Calcined, K. & M.'s, 1-lb cans.....lb	75
Buckbean, pressed oz	30	Calcined, K. & M.'s, heavy.....lb	80
Cocoa.....lb	45	Carbonate, Jennings', 2-oz.....lb	35
Conium. lb	30	Carbonate, Jennings', 4-oz.....lb	35
Conium, powd. lb	35	Carbonate, K. & M.'s, 1-oz.....lb	27
Conium, pressed. oz	30	Carbonate, K. & M.'s, 2-oz.....oz	23

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Carbonate, K. & M.'s, 4-oz.....lb	23	Tonquin, grain dr	3 25
Carbonate, K. & M.'s, small sq.....lb	60	MUSTARD, Colman's, 4-oz cans.....doz	1 75
Carbonate, powd., in 65-lb bbls.....lb	13	Colman's, 5-lb cans lb	50
Carbonate, powd., in 10-lb boxes.....lb	16	Ground, Domestic, 5-lb cans.....lb	18
Citrate, dry, English.....lb	65	NAPHTHALIN, Balls. lb	5-7
Citrate, sol. doz	1 75	Resublimated lb	27
Glycerinophosphate oz	44	Pure, 1-lb cartons, M. C. W.....lb	27
Hypophosphite, 1-oz vials, M. C. W.....oz	20	NAPHTHOL, Alpha. oz	30
Hypophosphite, M. C. W.....lb	1 69	Beta. oz	10
Hypophosphite oz	20	NICKEL, Bromide oz	32
Iodide, M. C. W.....oz	47	Bromide, 1-oz vials, M.C.W.....oz	29
Sulphite, M. C. W.....lb	49	Nickel and Ammonia Sulphate, M. C. W..lb	34
MANGANESE, Black, Oxide lb	8-10	Sulphate, 1-oz vials, M. C. W.....oz	9
Phosphate, M. C. W.....oz	18	Sulphate oz	10
Carbonate, 1-oz vials, M. C. W.....oz	14	NOSOPHEN. doz	4 50
Chloride, 1-oz vials, M. C. W.....oz	14	NUTGALLS, Aleppo. lb	30
Hypophosphite, 1-oz vials, M. C. W.....oz	20	Aleppo, ground. lb	35
Hypophosphite oz	20	Aleppo, powd. lb	35
Iodide, 1-oz vials, M. C. W.....oz	47	NUTMEGS, Macassar, large.....lb	60
Peptonized oz	29	Penang, powd. lb	65
Phosphate, M. C. W.....oz	18	NUTS, Areca lb	30
Sulphate, 1-oz vials, M. C. W.....oz	9	Areca, powd. lb	40
MANNA, Large flake lb	1 15	Kola. lb	35
Small flake lb	75	Kola, powd. lb	40
MENTHOL lb	3 40	NUX VOMICA. lb	25
Cryst., 1-oz vials, Mallinckrodt's.....oz	30	Powdered or rasped.....lb	25
Crystallized lb	3 50	OAKUM lb	15
MERCURY, Chloride lb	99	Surgeon's. lb	20
Ammoniate, d white precip. lb	1 25	OIL, Almonds, Bitter, true, Merck's.....lb	6 59
Bisulphate lb	76	Almonds, Bitter, Allen's.....oz	75
Cyanide oz	31	Almonds, Sweet, Allen's.....lb	75
Iodide, green, 1-oz vials, M. C. W.....oz	23	Almonds, Sweet lb	50-65
Iodide, red, 1-oz vials, M. C. W.....oz	25	Amber, rectified. lb	60
Iodide, yellow, 1-oz vials, M. C. W.....oz	23	Anise lb	1 75-2 00
Nitrate, proto., 1-oz vials, M. C. W.....oz	27	Bay Leaves, true.....oz	35
Nitrate, solution, 1-oz vials.....oz	27	Bay Leaves lb	3 75-4 00
Oxide, black, 1-oz vials.....oz	18	Benne.....gal	1 20
Oxide, red (red precip.).....lb	1 20	Bergamot lb	4 75-5 00
Oxide, yellow, 1-oz vials oz	19	Birch Tar, rectified.....lb	1 25
Salicylate, M. C. W.....oz	27	Cade.....lb	50
Subsulphate, 1-oz vials. oz	15	Cajuput (21-oz bottles).....lb	1 10-1 35
Subsulphate lb	1 12	Calamus. oz	45
Sulphuret, black. lb	78	Camphor, E. I. lb	45
White Chalk, 1-lb cartons lb	46	Caraway, seed. lb	2 25
METHYL, SALICYLATE. lb	80	Cardamon. oz	2 50
METHYLENE, Blue Medicinal oz	45	Cassia lb	1 85-2 00
MILK SUGAR, Cryst.....lb	33	Castor, Baker's A. A.....gal	1 30
Powdered, bulk lb	23	Castor, Marsh's gal	1 25
M. C. W., 1-lb cartons lb	25	Castor, 2-oz bottles.....doz	85
MORPHINE, Sulphate, 1/8s, 1-oz box, M. C. W. oz	3 55	Castor, 4-oz bottles.....doz	1 25
Sulphate, 1 1/8s, 2 1/2-oz box, M. C. W. oz	3 45	Castor, 6-oz bottles.....doz	1 75
Sulphate, 1-oz vials, M. C. W. oz	3 20	Castor, 8-oz bottles.....doz	2 25
Sulphate, 5-oz can, M. C. W.....oz	3 15	Castor, 12-oz bottles.....doz	2 50
Sulphate, 1 1/8s, 1-oz box, N. Y. Q.....oz	3 45	Castor, 16-oz bottles.....doz	3 75
Sulphate, 1 1/8s, 2 1/2-oz box, N. Y. Q.....oz	3 40	Cedar lb	60-100
Sulphate, 1-oz vials, N. Y. Q.....oz	3 20	Cedrat. oz	40
Sulphate, 1/8s, 2 1/2-oz box, P. W. R.....oz	3 40	Celery. oz	1 40
Sulphate, 1-oz bot, P. W. R.....oz	3 20	Chamomile, German. oz	5 00
In 10-oz lots, 10c oz less.		Chamomile, Roman. oz	1 75
Morphia, Acetate, 1/8s, M. C. W.....oz	3 60	China, Nut. gal	1 00
Morphia, Muriate, 1/8s, M. C. W. oz	3 55	Cinnamon, Ceylon. oz	90
Morphia, Valerianate, 1/8s, M. C. W.....oz	5 00	Citronella lb	75-85
Other salts or Morphine subject to market price based on above.		Cloves lb	1 40-1 65
MOSS, Iceland. lb	18	Cocoanut lb	20-25
Irish. lb	15	Codliver, White, Norwegian gal	1 50
Irish, bleached. lb	20	Codliver, White, Norwegian, 5-gal cans..gal	1 40
MUSK, Chinese oz	40	Cognac, green. oz	2 50
		Cologne. oz	50
		Copaiba,.....lb	1 75

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Coriander.	oz	90
Cotton Seed (salad), 5-gal can.	gal	85
Cotton Seed (salad), 1-gal can.	gal	1 10
Croton, 24-oz bots.	lb 1 50-1	65
Croton	oz	20
Cubebs	lb 2 00-2	25
Ergot, Keith's.	oz	57
Erigeron, Keith's.	oz	38
Erigeron	lb 2 75	
Eucalyptus	lb	85
Fennel Seed	lb 2 25	
Fusil, purified.	lb	80
Geranium, Rose, Chris.	oz	75
Hemlock	lb	85
Hydrocarbon.	gal 1 25	
Jasmin, alcoholic.	lb 3 00	
Juniper Berries.	lb 1 25-1	50
Juniper, wood.	lb	75
Lard.	gal 1 10	
Laurel, expressed.	lb	60
Lavender, Flowers	lb 3 85	
Lavender, Garden	lb 1 25	
Lemon	lb 2 00	
Lemon, Sanderson's	lb 2 25	
Lemon, Grass	lb 2 25	
Linseed, raw	gal 74	
Linseed, raw, case	gal 67	
Linseed, boiled	gal 74	
Linseed, boiled, case	gal 69	
Mace, expressed.	lb 1 75	
Male Fern, ethereal.	oz 35	
Myrbane.	lb 40	
Mullein.	oz 45	
Musk, alcoholic.	oz 1 00	
Mustard, essential.	oz 50	
Mustard, expressed.	gal 90	
Neatsfoot, No. 1.	gal 90	
Neroli, Petal.	oz 3 00	
Neroli, Bigarade.	oz 5 75	
Neroli, Petit Grain.	oz 55	
Nutmegs, essential.	oz 35	
Olive, pure, Malaga.	gal 1 25	
Olive, California	gal 2 75	
Olive, 1/2-gals.	gal 3 00	
Olive, small	doz 3 75	
Olive, large.	doz 7 50	
Olive, imported.	gal 2 00-2	10
Orange, bitter.	lb 4 50	
Orange, sweet	lb 3 25	
Origanum, pure.	lb 60	
Origanum, Chris.	lb 1 85	
Palm.	lb 25	
Patchouly.	oz 75	
Pennyroyal	lb 4 00	
Pepper, black.	oz 20	
Peppermint, Hotchkiss	lb 3 00	
Peppermint, Wayne Co.	lb 2 80	
Peppermint, Western	lb 2 75	
Pimento.	oz 10	
Pinus, Sylvestris, German.	lb 1 50	
Pinus, Pumilio.	lb 4 50	
Pinus Pumilio.	oz 40	
Rhodium	oz 35	
Rose, Kizanlik	oz 7 50	
Rosemary, flowers.	lb 1 25-1	50
Rue.	oz 40	
Sandalwood, English	lb 5 00	
Sandalwood, German.	lb 3 00-3	20
Sassafras.	lb 90-1	00

Savin.	lb	1 75
Spearmint	lb	6 00
Sperm.	gal	1 00
Spike.	lb	35
Spruce.	lb	85
Tansy	lb 5 50	
Tar.	lb	25
Thyme, white.	lb 1 50	
Turpentine, pure.	lb	55
Wine, light.	oz	40
Wine, heavy.	oz	50
Wintergreen	lb 4 00-4	25
Wormseed.	lb 3 75-4	00
Wormwood	lb	5 25
Ylang Ylang.	oz 4 50	
OINTMENT, Basilicon.	lb	65
Citrine.	lb	65
Iodine.	lb 1 25	
Mercurial, 1/2 m.	lb	65
Mercurial, 1/3 m.	lb	55
Stramonium.	lb	75
Tar.	lb	50
Zinc, benzoated.	lb	65
Zinc, oxide.	lb	65
OPIUM, powd. or gran., P. W. R.	lb	6 50
ORTHOFORM	oz	1 40
PANCREATIN, Pure	oz	44
Pure, scales, P. D. & Co.	oz	50
PAPAIN, Boehringer.	oz	75
PARAFFINE, refined.	lb 12-15	
PARALDEHYDE	lb	99
.	oz	14
PARIS GREEN.	lb 38-42	
PASTILLES, Fumigating, black.	lb	50
Fumigating, red	lb	50
PEARL ASH.	lb 8-10	
PEEL, Orange, sweet, ground.	lb	20
Orange, bitter, coarse.	lb	20
Orange, bitter, powdered.	lb	20
Orange, sweet, quarters.	lb	20
PELLETIERINE, Sulphate, 15-gr vial.	1 75	
Tannate, 15-gr vial	35	
PEPPER, black, Singapore, sifted.	lb	30
Black, powd.	lb	30
White.	lb	40
White, powd.	lb	40
PEPSIN, pure, U. S. P.	lb 4 50	
Powd. or scales.	lb 4 50	
Powd., Ph. G. III.	oz	25
PEPTONE, Merck's, dry, from meat.	oz	34
PETROLATUM, 1-lb cans.	doz 2 00	
50-lb pails.	lb	7
25-lb pails.	lb	7 1/2
10-lb cans.	lb	9
5-lb cans.	lb	10
Snow White, 50-lb pails.	lb	15 1/2
Snow White, 25-lb pails.	lb	16 1/2
Snow White, 10-lb cans.	lb	18
Snow White, 5-lb cans.	lb	19
Snow White, 1-lb cans.	lb	30
PHENACETINE.	oz	33
PHENILINE.	oz 1 00	
PHENOLPHTHALEIN	oz	34
PHOSPHORUS, 1-lb cans.	lb	85
1/2-lb cans.	lb	95
1/4-lb cans.	lb 1 05	
Amorphous.	lb 1 44	
PIPERAZIN, Schering's 10-gm vials.	bot	1 50
1/2-oz and 1-oz.	oz	4 25

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PIPERIN, 1-oz vials, Mallinckrodt's.....oz	62	Jalap, comp. lb	1 00
PIPE CLAY. lb	12	Licorice, comp. lb	25
PITCH, Burgundy lb	15	Licorice, comp., 2-oz packages.....doz	75
PITH, Sassafras. lb	1 50	Rhubarb, comp. lb	1 50
PLATINUM and Barium Cyanide, cr.....gr	15	Tooth. lb	50
Chloride oz	17 00	PROPYLAMIN, 10% solution oz	55
Chloride, solution, 10%.....oz	2 82	Hydrochlorate, 1/8-oz vials. oz	3 50
PODOPHYLLIN oz	30	PROTARGOL. oz	1 25
POPPY HEADS, German. lb	30	PULVIS ANTIMONIALIS. lb	85
POTASH, Babbitt's, 4 doz in case.....case	3 40	PYOKTANIN, Blue or Yellow oz	1 50
Caustic, pure, by alcohol.....lb	60	PYRIDINE oz	32
Caustic, white. lb	37	QUICKSILVER. lb	80
Caustic, 10-lb cans.....lb	10-12	QUINACETINE. oz	85
Solution (liq. potass.) lb	35	QUINALGIN. oz	1 25
POTASSIUM. Acetate, M. C. W., 1-lb.....lb	42	QUININE, Alkaloid, 1-oz vials, M.C.W....oz	58
Antimonate lb	1 09	Bisulphate, 1-oz vials, M.C.W.....oz	28
Arsenate, 1-oz vials oz	14	Bisulphate, 5-oz cans, M.C.W.....oz	26
Bicarbonate, cryst., M. C. W.....lb	20	Citrate, 1-oz vials, M.C.W.....oz	57
Bicarbonate, granulated, M. C. W.....lb	20	Muriate, 1-oz vials, M.C.W.....oz	51
Bicarbonate, powd. lb	20	Phosphate, 1-oz vials, M.C.W.....oz	55
Bichromate lb	18-20	Salicylate, 1-oz vials, M.C.W.....oz	54
M. C. W. lb	34	Sulphate, 1-oz cans, M.C.W.....oz	28
Bromide, crys. or gran., M. C. W.....lb	27-30	Sulphate, 5-oz cans, M.C.W.....oz	25
Carbonate, purified, M. C. W.....lb	41	Sulphate, 25-oz cans, M.C.W.....oz	21
Carbonate, bulk. lb	15	Sulphate, 50-oz cans, M.C.W.....oz	20
Caustic, pure lb	37	Sulphate, 100-oz cans, M.C.W.....oz	18
Caustic, C. P. lb	2 59	Sulphate, 1-oz cans, N. Y. Q.....oz	28
Chlorate, cryst. lb	16-18	Sulphate, 5-oz cans, N. Y. Q.....oz	25
Chlorate, gran., pure, M. C. W.....lb	22	Sulphate, 25-oz cans, N. Y. Q.....oz	21
Chlorate, powd. lb	16-18	Sulphate, 100-oz cans, N. Y. Q.....oz	18
Chloroplatinite, M. C. W., 15-gr vials..each	80	Sulphate, 1-oz cans, P. W. R.....oz	28
Chromate, yellow, neutral. lb	40	Sulphate, 5-oz cans, P. W. R.....oz	25
Citrate, M. C. W.....lb	66	Sulphate, 25-oz cans, P. W. R.....oz	21
Cyanide, fused, M. C. W.....lb	45	Sulphate, 100-oz cans, P. W. R.....oz	18
Cyanide, C. P. 99%.....lb	52	Tannate, Neutral oz	38
Cyanide, Miner's, 10-lb tin.....lb	28	Tannate, 1-oz vials, M.C.W.....oz	37
Ferrieyanide, chem. pure, M. C. W.....lb	1 04	Valerianate, 1-oz vials, M.C.W.....oz	57
Ferrocyanide, pure lb	59	QUINOLINE oz	45
Glycerinophosphate.....oz	26	Tartarate oz	45
Hypophosphite, M. C. W.....lb	99	QUINIDINE. N. Y. Q., 1-oz vial.....oz	85
Iodide, M. C. W., 1-lb boxes.....lb	2 27	Sulphate, N. Y. Q., 1-oz vial.....oz	75
Iodide, N. Y. Q., 1-lb boxes.....lb	2 27	RED SAUNDERS. lb	12
Iodide, cryst. or gran., 1-lb boxes, P.W.R.lb	2 52	RESIN, Jalap oz	54
Nitrate, cryst. lb	10-12	RESORCINOL (Resorcin) M. C. W.....lb	1 30
Nitrate, granulated. lb	10-12	Resorcinol (Resorcin) M. C. W.....oz	17
Nitrate, chemically pure, M. C. W.....lb	30	ROOT, Abscess, pressed, lb.....lb	40
Oxalate, neutral. lb	28	Aconite, powd.....lb	35
Permanganate, cryst., 1-oz vials.....oz	8	Aconite, pressed.....lb	32
Permanganate, large cryst., pure, M.C.W..lb	27	Copaiba. lb	1 50
Permanganate, small cryst.....lb	25	Scamony oz	40
Phosphate, 1-oz vials.....oz	11	Alkanet lb	25
Phosphate lb	64	Alkanet, powd.....lb	30
Prussiate, red. lb	65	Angelica, pressed lb	20
Prussiate, yellow. lb	35	Angelica, powd lb	25
Sulphate, cryst. or powd.....lb	16	Arnica, pressed lb	35
Sulphate, chemically pure.....lb	60	Belladonna, pressed, lb. lb	25
Sulphide (Liver Sulphur).....lb	24	Belladonna, powd.....lb	28
Tartrate (soluble Tartar).....lb	59	Berberis Aquif, pressed, lb.....lb	45
POWDER, Antimonial. lb	85	Beth, pressed, lb.....lb	30
Aromatic. lb	1 25	Beth, powd lb	35
Carbolic Acid, disinfecting.....doz	1 50	Blackberry, pressed, lb.....lb	30
Chalk, aromatic. lb	75	Blood, pressed, lb.....lb	30
Chalk, compound. lb	75	Blood, powd.....lb	35
Chalk and Opium. lb	2 50	Blue Flag, pressed lb	25
Composition, 2-oz papers.....lb	35	Burdock, pressed, lb. lb	25
Dover's lb	1 70	Burdock, powd.....lb	25
Insect, Buhach, 6-lb cans.....lb	60	Calamus, peeled lb	30
Insect, Dalmatian. lb	25-30	Calamus, white, peeled and split.....lb	50
Insect, Mrs. Hill's, 6-lb cans.....lb	35	Calamus, powd.....lb	35

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Cohosh, black, pressed. lb	25	Rhubarb, East India, powd lb	75
Cohosh, black, powd. lb	25	Rhubarb, cut in cubes, No. 1.....lb	1 25
Cohosh, blue, pressed, lb.....lb	25	Rhubarb, cut in cubes, No. 2.....lb	1 00
Cohosh, blue, powd.....lb	25	Rhubarb, cut in fingers, No. 1.....lb	1 50
Colchicum lb	28	Rhubarb, cut in fingers, No. 2.....lb	1 25
Colchicum, powd lb	35	Salep, powd lb	1 00
Columbo, foreign. lb	25	Sarsaparilla, American lb	35
Columbo, powd.....lb	25	Sarsaparilla, American, powd lb	35
Comfrey, pressed, lb. lb	25	Sarsaparilla, Honduras lb	65
Comfrey, powd.....lb	25	Sarsaparilla, Honduras, ground.....lb	65
Cranesbill, pressed, lb.....lb	25	Sarsaparilla, Honduras, powd lb	65
Culvers, pressed, lb.....lb	25	Sarsaparilla, Mexican lb	20
Culvers, powd lb	30	Sarsaparilla, Mexican, ground lb	25
Dandelion, Am., pressed, lb.....lb	35	Sarsaparilla, Mexican, powd lb	25
Dandelion, powd lb	35	Senega, pressed lb	75
Dwarf Elder, pressed, lb.....lb	35	Senega, powd. lb	80
Elecampane, pressed, lb. lb	25	Senega, powd. lb	28
Elecampane, powd lb	25	Silkweed, pressed lb	30
Gelsemium, pressed, lb.....lb	25	Skunk Cabbage, pressed lb	35
Gelsemium, powd lb	25	Skunk Cabbage, powd lb	65
Gentian lb	18	Snake, Canada, pressed.....lb	65
Gentian, ground lb	20	Snake, Virginia lb	70
Gentian, powd lb	20	Snake, Virginia, powd lb	72
Ginger, African. lb	17	Spikenard, pressed lb	30
Ginger, African, powd lb	18	Spikenard, powd lb	20
Ginger, Jamaica, bleached. lb	27	Squills, white, sliced. lb	60
Ginger, Jamaica, bleached, powd.....lb	34	Squills, powd lb	25
Ginseng lb	8 50-10 00	Stillingia, pressed lb	30
Golden Seal lb	2 70	Stillingia, powd lb	25
Golden Seal, powd lb	2 70	Stone, pressed lb	25
Hellebore, black, pressed.....lb	25	Sweet Flag, pressed lb	28
Hellebore, black, powd.....lb	25	Turkey Corn lb	35
Hellebore, white, pressed, lb.....lb	25	Unicorn, true, pressed lb	40
Hellebore, white, powd.....lb	25	Unicorn, true, powd lb	40
Indian Hemp, black, pressed, lb.....lb	35	Unicorn, false, pressed.....lb	45
Indian Hemp, black, powd lb	40	Unicorn, false, powd lb	35
Indian Hemp, white, pressed lb	25	Valerian, English, bulk.....lb	35
Indian Hemp, white, powd lb	30	Valerian, English, powd lb	30
Ipecac, Rio, powd.....lb	2 50	Valerian, German lb	30
Jalap lb	30	Valerian, German, powd lb	25
Jalap, powd lb	35	Yellow Dock lb	30
Kava Kava lb	50	Yellow Dock, ground lb	30
Ladies' Slipper, pressed, lb.....lb	75	Yellow Dock, powd lb	30
Licorice, select lb	16	Zedoary lb	6-8
Licorice, pipestem lb	18	ROSIN, No. 1. lb	7 75
Licorice, cut, Russian lb	20	Barrel. lb	50
Licorice, powd lb	16-20	ROUGE, Jewelers' lb	35
Mandrake, pressed, lb.....lb	30	SACCHARIN tin	60
Mandrake, powd lb	35	SAFFRON, American lb	80
Marshmallow, cut lb	34	Spanish. oz	10 50
Marshmallow, powd lb	35	Spanish lb	30
Musk lb	30	SAL, Acetosella lb	2 1/2-5
Orris, Florentine lb	25	Epsom lb	1 1/2-4
Orris, Florentine, Fingers.....lb	1 25	Glauber lb	10-12
Orris, Florentine, granulated.....lb	35	Nitre lb	10-12
Orris, Florentine, powd.....lb	30	Nitre, granulated. lb	10-12
Pareira Brava, pressed lb	34	Nitre, powd. lb	45
Pink. lb	85	Prunelle lb	28-30
Pink, powd. lb	90	Rochelle. lb	3-5
Pleurisy, pressed lb	25	Soda. lb	15
Poke, pressed lb	25	Tartar. lb	37
Poke, powd lb	20	SALICINE oz	4 60
Pond Lily, white, pressed lb	40	lb	1 00
Pond Lily, white, powd lb	40	SALIPYRINE oz	15
Pond Lily, yellow, pressed lb	30	SALOL, Mallinckrodt's.....oz	1 17
Pond Lily, yellow, powd lb	35	Salol, Mallinckrodt's, cartons lb	1 00
Rhatany lb	30	SALOPHEN oz	8 00
Rhatany, powd lb	35	SANTONIN, bulk, M. C. W.?.....lb	60
Rhubarb, East India lb	75	1-oz vials, M. C. W.....oz	25
		SEED, Angelica lb	

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Anise, Italian	lb	20	Rappee	lb	65
Anise, Italian, powd.....	lb	25	Rappee, 3 1/3-oz bots.....	doz	2 00
Anise, Star	lb	45	Scotch, Lorillard's	lb	65
Bird, mixed, bulk.	lb	8	Scotch, Lorillard's	doz	2 00
Bird, mixed, boxes.	doz	1 00	Scotch, Garrett's Bladders.....	lb	55
Bird, mixed, cases, 30 pks.....	2 25		SOAP, Castile, Conti's, white, box 14c less..	lb	17
Burdock	lb	25	Castile, mottled, box 8 1/2c; less.....	lb	12
Canary	lb	9-10	Castile, powdered, white.....	lb	35
Carraway, Dutch.	lb	15	Green, German	lb	25
Carraway, powd.	lb	17	Opodeldoc	lb	65
Cardamon, Malabar.	lb	1 00	SODA, Ash.	lb	2 1/2-5
Cardamon, Mangalor, bleached.....	lb	1 25	Caustic, Sticks	lb	34
Cardamon, powd.	lb	1 00	Caustic, com., drums.....	lb	3-4
Celery	lb	25	Caustic, com., 10-lb drums.....	lb	6 1/2-7 1/2
Colchicum.	lb	50	Caustic, purified, fused.....	lb	40
Colchicum, powd.	lb	55	Sal (carbonate) bbls., 1 3/4c.....	lb	3
Conium	lb	25	Soda Silicate, dry	lb	35
Coriander, German.	lb	14	Soda Silicate, liquid.....	lb	15-25
Coriander, German, powd	lb	20	SODIUM, 1-oz vials, M. C. W.....	oz	25
Cumin	lb	18-20	Acetate, M. C. W., carton.....	lb	17
Dill	lb	25	Arsenate, 1-oz vials.....	oz	9
Fennel.	lb	18	Arsenite, 1-oz vials, M. C. W.....	oz	10
Fennel, powd.	lb	20	Benzoate, 1-oz vials, M. C. W.....	oz	11
Flax, recleaned.	lb	5 1/2-6	Benzoate, 1-lb bots.	lb	56
Flax, ground.	lb	5 1/2-6	Benzoate, true fr. Gum Benzoin.....	oz	29
Flax Oil Cake	lb	2 1/2-3 1/2	Bicarbonate, C. P., powd., M. C. W.....	lb	15
Foenugreek, powd	lb	12	Bicarbonate, kegs, 3c.....	lb	4-5
Hemp, recleaned	lb	6 1/2-8	Bisulphite, dry, pure	lb	27
Henbane	lb	35	Borate, neutral	oz	19
Larkspur.	lb	55	Bromide, M. C. W.....	lb	32
Lobelia.....	lb	60	Cacodylate	oz	84
Lobelia, powd.	lb	65	Carbonate, pure cryst., 1-lb car., M. C. W..	lb	11
Millet, American.	lb	6-8	Carbonate, pure gran., 1-lb car., M. C. W..	lb	11
Mustard, black, Trieste	lb	10-12	Carbonate, dried, C. P., 1-lb car.....	lb	27
Mustard, white	lb	10-10	Cinnamate	oz	59
Poppy Blue	lb	16	Citrate, M. C. W.....	lb	67
Pumpkin	lb	22	Glycerophosphate, 75%	oz	24
Rape, California.	lb	6-8	Glycocholate.	oz	1 04
Quince	lb	1 50	Hypophosphite, purified	lb	1 14
Sabadilla	lb	35	Hypophosphite, 1-oz vials	oz	15
Sabadilla, powd	lb	30-35	Hyposulphite, 112-lb kegs.	lb	3
Stavesacre	lb	40	Hyposulphite, less	lb	5
Stavesacre, powd	lb	45	Iodide, 1-oz vials, M. C. W.....	oz	31
Stramonium	lb	25	Iodide, M. C. W.....	lb	3 53
Stramonium, powd	lb	30	Nitrate, cryst., C. P.....	lb	29
Sunflower	lb	10-12	Nitrate, gran., pure, 1-lb cartons.....	lb	18
Watermelon	lb	25	Phosphate, pure, recryst., bulk.....	lb	12
Worm, American	lb	25	Phosphate, gran., pure, M. C. W.....	lb	13
Worm, American, powd	lb	25	Phosphate, dried, powd.....	lb	24
Worm, Levant	lb	35	Salicylate, 1-lb box, P. W. R.....	lb	50
Worm, Levant, powd	lb	40	Salicylate, 1-lb box, M. C. W.....	lb	50
SEIDLITZ MIXTURE	lb	28-30	Santoninate	oz	89
SILVER, Bromide, 1-oz. vials, M. C. W....	oz	1 19	Succinate	oz	45
Chloride, 1-oz vials, M. C. W.....	oz	84	Sulphate, Glauber Salts.....	lb	3-5
Cyanide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, Glauber Salts, bbl.....	lb	1 1/2
Iodide, 1-oz vials, M. C. W.....	oz	1 04	Sulphate, dried	lb	18-20
Lactate	oz	1 04	Sulphite, crystals	lb	10
Nitrate, cryst., 1-oz vials, M. C. W.....	oz	52	Sulphite, granulated	lb	18
Nitrate, cones, 1-oz vials.....	oz	64	Sulphite, dry	lb	22
Nitrate, fused (Lunar caustic), 1-oz vials,			Tartrate	lb	64
M. C. W.	oz	55	SOLUTIONS, Donovan's	lb	34
Nitrate, cryst., 1-oz vials, P. W. R.....	oz	52	Fowler's	lb	30
Nitrate, cryst., 1-lb vials, P. W. R.....	lb	8 25	Goulard's	lb	35
Nitrate, fused, No. 2, 1-oz vials.....	lb	42	Nitrate, Iron	lb	50
SNUFF, Garrett's, 1-oz tins.....	doz	60	Mercury, Nitrate	oz	20
Garrett's, 1 3/4-oz tins.	doz	1 10	Monsel's	lb	50
Garrett's, 3 1/3-oz tins.....	doz	1 75	Tin, Chloride	lb	35
Garrett's, 6-oz bots.....	doz	3 25	SOMATOSE, Biscuit, 8-oz boxes.....	doz	4 00
Maccaboy, 3 1/3-oz bots.....	doz	2 00	Somatose, Ferro, 2-oz tins.....	doz	10 50

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Somatose, 2-oz tins	doz	8 50	Sicily, ground.	lb	5
Somatose, 1¼-lb tins	lb	5 25	Strips	lb	15
Somatose, 1½-lb tins	lb	5 00	Washed	lb	15
SOZOIODOL, Mercury	oz	1 15	SUMAC.	lb	10
Potassium	oz	75	SYRUP, Ginger, U. S. P.	lb	65
Sodium	oz	80	Hydriodic Acid	lb	70
Zinc	oz	1 10	Iron Iodide	lb	65
SPARTEINE, Sulphate, ⅛s.	oz	83	Ipecac	lb	60
Sulphate, 15-gr. vials.	ea	12	Lactucarium	lb	1 00
SPERMACEI, in cakes	lb	42-45	Orange Peel	lb	65
SPIRIT, Ammonia	lb	75	Rhubarb	lb	60
Ammonia, aromatic.	lb	85	Rhubarb, Aromatic	lb	65
Camphor	lb	75	Rhubarb and Potash.	lb	65
Chloroform, U. S. P.	lb	75	Sarsaparilla	lb	65
Lavender	lb	60	Sarsaparilla, comp.	lb	65
Nitre, U. S. P., 1-lb bots.	lb	65	Senna	lb	65
Nitre, U. S. P., 4-lb bots.	lb	58	Senega, U. S. P.	lb	65
Nutmeg.	lb	75	Simple	lb	35
Pimento.	lb	65	Squill	lb	60
Rosemary.	lb	65	Squill, comp.	lb	60
STEARIN	lb	20	Stillingia, comp.	lb	60
STONE, Pumice, select.	lb	10	Tolu	lb	60
Pumice, select, powd.	lb	8-10	Wild Cherry	lb	60
Rotten	lb	12-15	Yerba Santa comp.	lb	65
Rotten, powd	lb	10	TALCUM, powdered	lb	6-8
Soap, cut	lb	18	Purified	lb	20-25
Soap, powd	lb	8	TAMARINDS, pound bottles.	lb	25
STRONTIUM, Bromide, cryst., M. C. W.	oz	11	Keg	ea	4 00
Carbonate, M. C. W.	lb	34	Pulp	lb	50
Hypophosphite, M. C. W.	oz	29	TANNALBIN.	oz	85
Iodide, 1-oz vials, M. C. W.	oz	28	TANNIN, 1-lb cartons, incl., Reg.	lb	85-90
Lactate	oz	16	Tannin, U. S. P.	lb	1 15
Muriate, M. C. W.	lb	32	TANNIGEN	oz	75
Nitrate, pure, dried	lb	59	TANNOFORM	oz	22
Salicylate, M. C. W.	lb	83	TANNOPINE	oz	75
Sulphate, M. C. W.	lb	69	Veterinary	oz	25
STYPTICIN	oz	6 50	TAR, Barbadoes	lb	25
STRYCHNINE, Acetate, ⅛-oz vials, M. C. W.	oz	1 75	Coal	gal	25
Arsenate, ⅛-oz vials, M. C. W.	oz	1 75	Pine, bulk	gal	40
Bromide, ⅛-oz vials, M. C. W.	oz	1 75	Pine, ½-lb cans.	doz	75
Citrate, ⅛-oz vials, M. C. W.	oz	1 75	Pine, 1-lb cans.	doz	90
Crystals, ⅛-oz vials, M. C. W.	oz	1 15	Pine, 2-lb cans.	doz	1 50
Hypophosphite, ⅛-oz vials, M. C. W.	oz	2 00	Pine, gal cans.	doz	6 00
Muriate, ⅛-oz vials, M. C. W.	oz	1 75	TARTAR EMETIC, M. C. W.	lb	50
Nitrate, ⅛-oz vials, M. C. W.	oz	1 75	TEREBENE, 1-lb bottles.	lb	79
Phosphate, ⅛-oz vials, M. C. W.	oz	1 80	.....	oz	14
Sulphate, ⅛-oz vials, M. C. W.	oz	1 45	TERPIN HYDRATE, cryst.	oz	9
Sulphate, 1-oz vials, M. C. W.	oz	1 25	Pounds	lb	55
Sulphate, 1-oz vials, P. W. R.	oz	1 25	TERPINOL, Liquid	oz	47
Crystals, 1-oz vials, N. Y. Q.	oz	95	THEOBROMINE, Alkaloid	oz	90
Crystals, in bulk, N. Y. Q.	oz	90	And Sodium Salicylate	oz	60
Powdered, in bulk, N. Y. Q.	oz	85	THIOL, dry	oz	1 00
Powdered, ⅛-oz vials, N. Y. Q.	oz	1 10	Liquid.	oz	40
Powdered, 1-oz vials, N. Y. Q.	oz	90	THYMOL, 1-oz vials	oz	26
STYRAX, liquid, ...	lb	60	Pounds	lb	3 10
SUGAR, burnt	lb	25	THYROIDIN	oz	1 30
Grape.	lb	25	.....	lb	53
Milk, crystals	lb	30	.....	lb	1 00
Milk, powd., bulk.	lb	23	Metallic, feathered	lb	35
Milk, powd., M. C. W., 1-lb cartons.	lb	25	Muriate, solution	lb	99
SULFONAL, 1-oz vials.	oz	1 35	Oxide, white, pure	lb	65
SULPHON-ETHYL-METHANE	oz	58	TINCTURE, Aconite Leaves.	lb	75
SULPHON-METHANE	oz	48	Aconite Root	lb	90
SULPHUR, California, ground, 110-lb bags.	lb	2	Aconite Root, Fleming's.	lb	65
Flowers	lb	5	Aloes	lb	65
Flowers, in bags.	lb	24-3	Aloes and Myrrh.	lb	65
Iodide	oz	38	Arnica	lb	65
Lac., precip.	lb	18	Asafoetida	lb	65
Roll, bbl.	lb	24-5	Belladonna	lb	65

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Benzoin	lb	75	TRIONAL	oz	1 50
Benzoin, comp.....	lb	75	TRIPOLI, bulk	lb	8-12
Blood Root	lb	65	TURPENTINE	gal	95
Buchu	lb	65	In case	gal	90
Cantharides	lb	75	Chian	oz	45
Capsicum	lb	65	Venice	lb	35
Cardamom	lb	75	URANIUM, Acetate, 1-oz vials	oz	59
Cardamom, comp.....	lb	75	Chloride, 1-oz vials	oz	47
Catechu, comp.....	lb	75	Nitrate, 1-oz vials	oz	45
Cinchona, comp.....	lb	75	Sulphate, 1-oz vials	oz	47
Cinnamon	lb	65	UROTOPIN	oz	60
Colchicum Root	lb	75	Tablets, 20 in box.....	box	25
Colchicum Seed	lb	75	UNGUENTUM CREDE, ½-oz jars.....	oz	90
Columbo	lb	60	URETHANE	oz	54
Conium	lb	65	VANILLIN, 1-oz vials.....	oz	75
Cubebs	lb	65	VERATRINE, pure, ¼-oz vials.....	oz	2 40
Digitalis	lb	65	VERONAL, powd.....	oz	1 60
Ergot	lb	75	Tablets, 10c.	ea	30
Ergot, ethereal	lb	80	Tablets, 100s	ea	2 25
Galls	lb	60	VERDIGRIS	lb	40
Gelsemium	lb	75	Powdered	lb	45
Gentian	lb	60	WATER, Cherry, Laurel.....	pt	50
Gentian, comp.....	lb	65	Chlorine	lb	40
Ginger	lb	65	Distilled	gal	8-10
Guaiac	lb	75	Elder Flower	lb	50
Guaiac, ammoniated	lb	75	Orange Flower, triple.....	lb	35
Guaiac, Dewees'	lb	75	Orange Flower	gal	2 00
Hyoscyamus	lb	65	Orange Flower, Chiris, small.....	doz	2 00
Iodine.	lb	1 40	Orange Flower, Chiris, large.....	doz	3 75
Iodine, colorless.	lb	1 40	Rose, triple	lb	40
Iodine, comp.	lb	1 40	Rose	gal	2 00
Iodine, Churchill's.	lb	1 75	Rose, Chiris, 6¾-gal coppers.....	gal	1 75
Ipecac	lb	80	Rose, Chiris, small.....	doz	2 00
Iron Acetate	lb	65	Rose, Chiris, large.....	doz	4 00
Iron Chloride	lb	50	WAX, Bayberry	lb	45
Iron Citro-Chloride	lb	65	Bees, yellow, refined.	lb	37-40
Jalap	lb	65	Bees, yellow, oz.	lb	45
Kino	lb	75	Bees, white, extra.	lb	60
Lobelia	lb	60	Bees, white, No. 1.	lb	55
Lobelia, ethereal	lb	65	Fruit, can, red.....	lb	8
Myrrh	lb	75	Fruit, can, white	lb	8
Myrrh and Capsicum.....	lb	75	Japan	lb	18-20
Nux Vomica	lb	65	WAX, FLOOR	lb	25-38
Opium	lb	1 25	Johnson's, 1-lb cartons.....	doz	4 00
Opium, camphorated	lb	60	Johnson's, ½-lb cartons.....	doz	2 25
Opium, deodorized	lb	1 30	Johnson's, ¼-lb cartons.....	doz	1 40
Orange Peel	lb	65	Bowdlear's, 1-lb cartons	doz	4 20
Quassia	lb	60	WHITING, Gilders'	lb	3
Rhatany	lb	60	Spanish	lb	2½
Red Saunders	lb	65	WINE, Antimony	lb	65
Rhubarb	lb	65	Aromatic	lb	65
Rhubarb, Aqueous	lb	60	Colchicum Root	lb	75
Rhubarb, Aromatic	lb	70	Colchicum Seed	lb	65
Rhubarb, comp.....	lb	65	Ergot	lb	1 25
Rhubarb, Sweet	lb	65	Ipecac	lb	1 25
Rhubarb and Aloes.....	lb	65	WOOD, Brazil, ground.....	lb	10
Rhubarb and Senna.....	lb	65	Camwood	lb	10
Senna	lb	65	Fustic, cut	lb	3½-5
Senna, comp.....	lb	65	Fustic, ground	lb	6
Serpentaria	lb	65	Guaiac, rasped	lb	10
Stramonium Leaves	lb	65	Hypernic.	lb	8-10
Stramonium Seed	lb	65	Logwood, chip.	lb	8-10
Strophanthus	lb	1 25	Logwood, ground.	lb	8-10
Tolu	lb	75	Nic.	lb	8-10
Valerian	lb	65	Quassia, chip.	lb	15
Valerian, ammoniated	lb	85	Quassia, ground.	lb	18
Veratrum Viride	lb	65	Quassia, powdered.	lb	18
Warburg's	lb	1 75	Red Sanders, ground.	lb	12
TRIKRESOL, S. & G.....	lb	60	Red, cut.	lb	10
TRIMETHYLAMINE	oz	55			

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XANTHOXYLIN, Keith's	oz	1	13
XYLOL	lb		70
ZINC, Acetate, 1-lb bottles, M. C. W.....	lb		43
Benzoate	oz		24
Benzoate, 1-oz vials, M. C. W.....	oz		24
Carbolate, 1-oz vials, M. C. W.....	oz		24
Carbonate, precipitate, 1-lb cartons.....	lb		25
Chloride, fused, 1-oz vials	oz		13
Chloride, granulated	lb		33
Cyanide, 1-oz vials, M. C. W.....	oz		21
Hypophosphite, 1-oz vials	oz		29
Iodide, 1-oz vials, M. C. W.....	oz		35
Metallic, pure, feathered.....	lb		27
Oxide, English, Hubbuck's.	lb		50
Oxide, pure, M.C.W.	lb		30
Permanganate	oz		52
Phosphate, M. C. W.....	oz		10
Phosphide	oz		23
Sulphate, cryst.....	lb	8-10	
Sulphate, cryst., chemically pure, M.C.W..	lb		18
Sulphide, 1-oz vials, M. C. W.....	oz		16
Sulphocarbonate, M. C. W.....	lb		59
Sulphocarbonate, 1-oz vials, M. C. W....	oz		11
Sulphate, H. P.	lb		15
Sulphate, dried, H. P.....	lb		25
Sulphocarbonate	oz		10

MINERAL WATERS.

	Case	Dozen
Apenta Bitter Water, 50 bots in case...	\$10 00	\$2 65

Apollinaris, 50 qt bots in case.....	8 50	2 25
Apollinaris, pints.	12 00	1 60
Buffalo Lithia, 12 ½-gal. bots in case..	6 00	....
Bartlett, 50 qt. bots. in case.....	8 00	2 25
Bethesda, 50 qt. bots. in case.....	7 50	2 25
Bethesda, 12 ½-gal. bots. in case.....	5 50	....
Bythia Water	10 00	2 50
Carlsbad, Sprudel, 30 qt. bots. in case..	11 00	4 50
Carlsbad, Muhlbrun, 50 qt. bots. in case	18 00	4 75
Congress (Saratoga), 48 bots. in case..	8 00	2 50
Franz Joseph, 50 bots. in case.....	11 00	3 00
Garrod Spa Lithia, pints.....	6 00	2 00
Garrod Spa, Lithia, ½-gal.....	....	5 00
Hathorn, 48 pt. bots. in case.....	8 00	2 50
Hunyadi Janos (in case), 50 qt. bots..	11 00	3 00
Hunyadi Matyas, 50 qt. bots. in case..	9 00	2 50
Londonderry Lithia, 50 qt. bots. in case	10 00	2 50
Londonderry Lithia, ½ gallons.....	9 50	6 50
Londonderry Lithia, 100 pints.....	13 50	1 75
Poland, qts. ....	....	5 00
Rackoczy Kissengen .....	....	5 00
Red Raven Splits.	5 00	1 35
Rubinat Condal, 50 pt. bots. in case..	14 00	3 75
Veronica .....	....	5 50
Vichy Water Celestine	10 25	3 00
Risk of breakage is assumed by buyer.		
Villacabras Water, qts., 50 bots. in case	17 50	4 50
Witter, 36 bots in case.....	12 00	4 50
White Rock Splits.	9 90	1 20
White Rock, pints	11 50	1 50
White Rock, quarts.	8 85	2 25

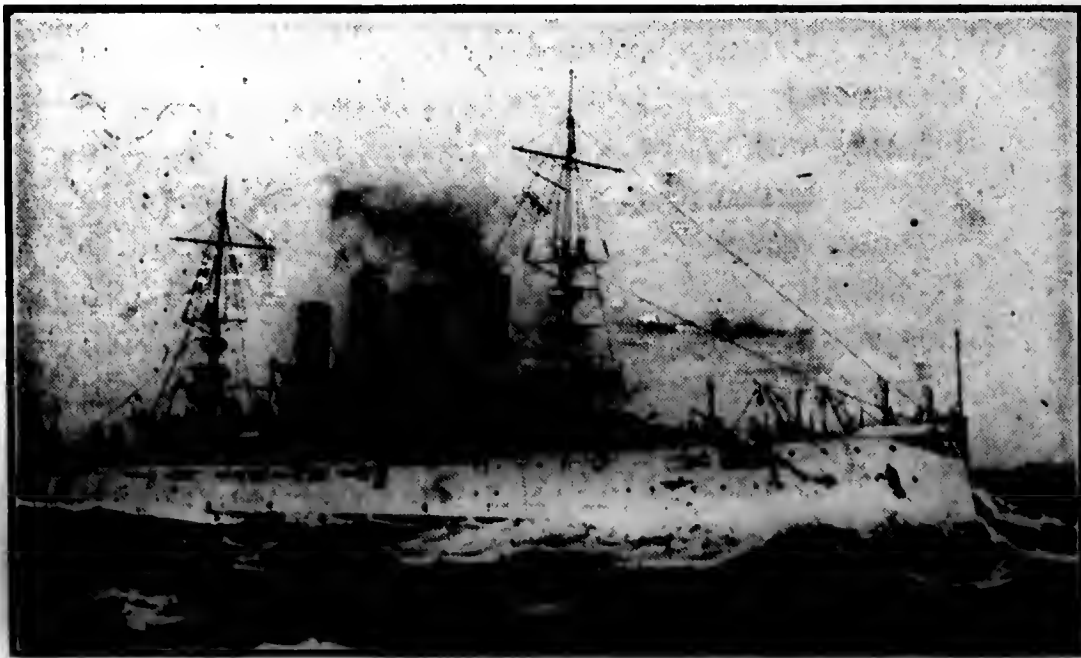
(Cash discount 5% on case prices White Rock.)

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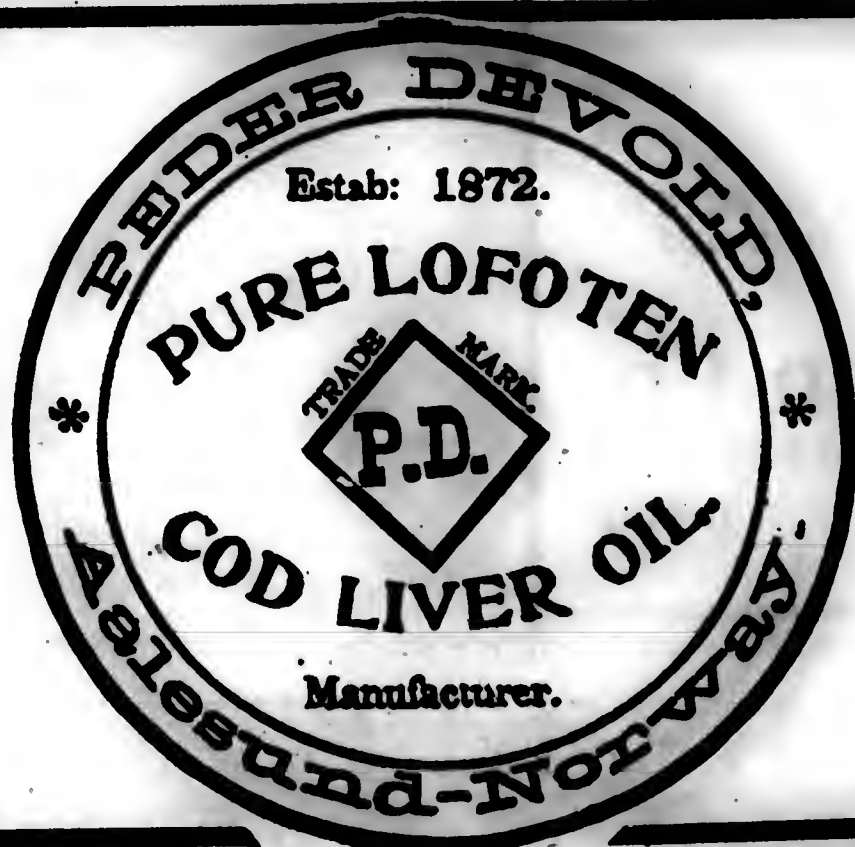
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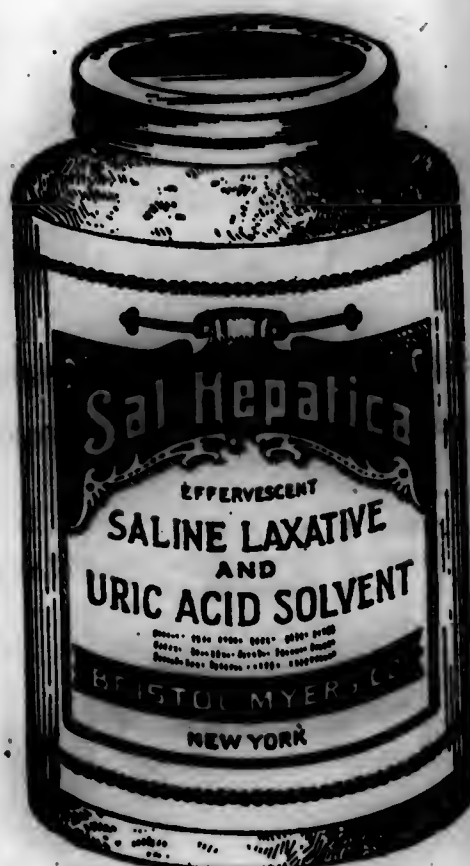
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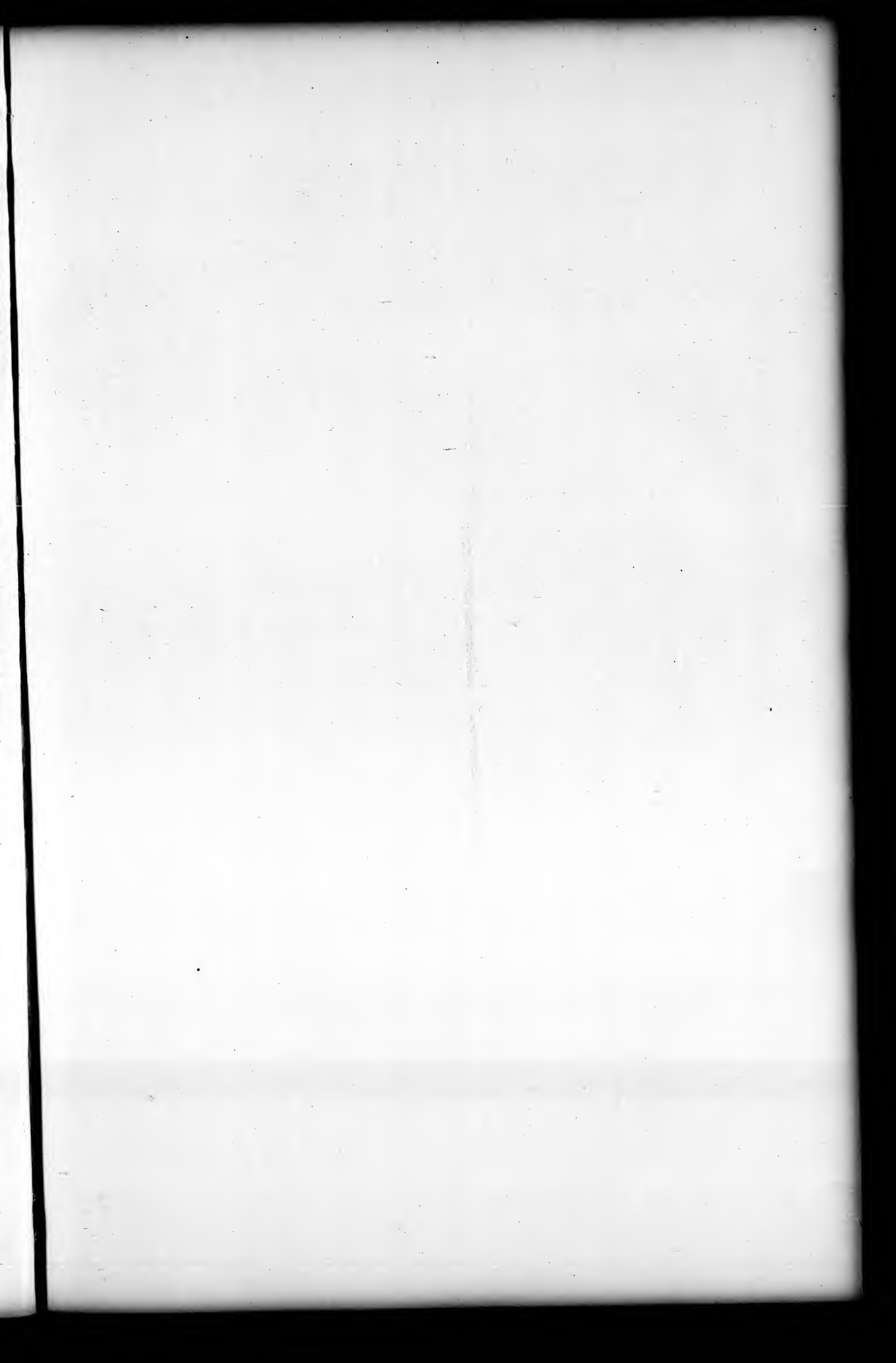
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